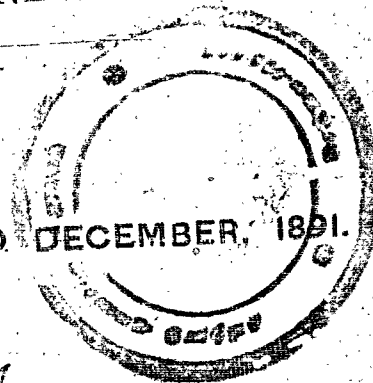


THE MADRAS

Journal of Education

VOL. V.—NEW SERIES.

JANUARY TO DECEMBER, 1891.



No-127003

MADRAS: V. KALYANARAM IYER.

1891.

செப்பனிருபவர் பெயர்
இவர் வேலாகுரணி
செப்பனிருவதற்காக எடுத்தக்
கொள்ளப்பட்ட நாள்
செப்பனிடும் முடிந்த நாள்
இதற்குப் பதிலாக
புதுகாப்பார்க்கும்
மு.பா.எ.
கையொப்பம்.
சுராயக்கி
உதவியாளர்
கையொப்பம்.

VOLUME V.—NEW SERIES.

	PAGE		PAGE
Acknowledgment of Receipt of books, &c.	22,68,167,224,275,336, 403,472,532,595,652	Education in Burmah	601
Arithmetic—Directions for teaching new rule in	... 382	" of Indian Women	186
Citizenship—Art of	... 81	" —Agricultural—in the Madras Presidency	543,608
Biography—My Pedagogic	... 317	" —Commercial	429
B		" —Finance of	207
Breeding and Benefiting—The spel- ling of	... 603	" —Free	306
Business—Mr. Oscar	... 443	" —Industrial	257
C		" —Industrial, for Eurasians	547
Woodard	... 405	" —Statistics of—for 1889-90	2
Teacher's Prologue—Mr. Maddox's vision of	... 565	" —Technical Industrial	51
Marriage	... 24,72	" —The Nature and Aims of	231,294
Teaching—What shall our—read	... 103	" —The claims and limi- tations of Physical— in school	123
Education Address (1891)	... 178	Educational Calendar and Directory	201
Light—The Law of—in Selec-	... 106	" Journals—Review of	384, 457,568,627
Spondence—G., 123,275,383,459, 518, 583,647		" Notifications	44,141,198,255, 359,417,478,536,695,654
Students—Answers to		" R.—Madras	129
Training and Specialization—An address on		" Suggestions	276
D		" Systems—Comparison of foreign—with our own	
Donor Institutions—The	... 161	" System in E. High School	
I		" The New—	
Editorial Notice	... 537	Educator—The magic l-	
Citizenship—Change of	... 361	Effects of deficient public mercy on	
Education in the Madras Presidency history of—by S. Sathian- M.A., LL.B.	425,500,558,624	Essays on	490
		Engineering College—The Madras —the Madras— Pass list for 1890	140

	PAGE		PAGE
English Literature in Schools	278	Kanarese Literature	443
Eurasians—Education of	488	Kindergarten form of study in the Primary School	176
Examination—In Science, Industries and Commerce—Pass list	44, 94, 410	Kindergarten system	433
—Lower Secondary	49	Knowledge—A love for	77
—Lower Secondary—Notification	83	Krishnamachariar—Rai Bahadur V.	53
—Upper Secondary—Pass list	409	Library in France—The	237
Examination—Changes in the Matriculation and F.A.	146, 555	Literary activity in India from a native point of view	483
—The Use and Abuse of	153		
F			
Free school system in America, France and Belgium—Dr. Fitch on the working of	337, 494		
G			
Gazette Notifications	96	MacDonald—The late Lt.-Genl.	152, 551
General Reading—The importance of—to the Teacher	259	Management of a Class—Hints for the	315
Geography lesson—A German	175	Mathematics—Decline of	547
Government Girls' School, Saidapet.	407		
Government of India scholars in England from Madras	377		
Government Order reviewing the Report on Public Instruction	250, 299		
Gown Controversy—The	403		
Graduates—Our first Lady	102		
Grant-in-Aid Code—The	206		
Gymnastics—Swedish	33		
H			
High School for European boys in the Nilgiris—A	369		
Hindoo Mathematics	339, 560		
History of Educational thought—The study of the	237		
History—On the teaching of	169		
—Genesis of the	482		
I			
—Children—The	287		
—In India	611		
Journal—An American estimate the	591		
Judgment—An important	27		

EDITIONS—(continued)—	PAGE
Ahmundry College, 1897-91 ..	532
Report on the Reformatory School at Chingleput for 1890-91 ...	653
Report on the working of the Kumbakonam College ...	475
Rules for admission, to the Public Service ...	472
School Registers ...	536
Session—Our ...	620
Public Instruction Report for 1889-90	
-The Government Review on ...	149
Public Libraries ...	419
Public School Register—A ...	278
R	
Examination—A—in Sanskrit for B.A. ...	3
Report on Public Instruction—Extraots from the ...	225
REVIEWS AND NOTICES OF BOOKS—	
Algebra Made Easy, by Kali Padu Basu, M.A. ...	119
Arithmetical, by J. C. Chakravarti, M.A. ...	119
Bacon's Advancement of Learning, by F. G. Selby, B.A. ...	267
Bacon's Advancement of Learning by W. E. Hoare, B.A. ...	267
Bacon's Essays and Colours of Good and Evil, by W. A. Wright, M.A. ...	649
Basu's Elementary Treatise on Algebra ...	401
Bell's Reading Book—Great Deeds in English History ...	468
Brief History of the British Empire ...	334
Chaucer's Prologue to the Canterbury Tales, by G. Maddox, B.A. ...	531
Chemistry, Equation Sheet, by R. Srinivasa Raghava Aiyengar ...	527
Chronological Outlines of English Literature, by F. Ryland, M.A. ...	17
Elementary Mechanics—Stage I, by Horsbin, B.A. ...	119
Elementary Principles of Chemistry, by H. C. Banerji, M.A. ...	164
Elementary Science lessons, by W. Hewitt, B.Sc. ...	469
Elementary Trigonometry, by J. M. Dyer, M.A., and Rev. R. H. Whitcombe, M.A. ...	647
English Composition and Rhetoric, by Alex. Bain, LL.D., and J. Adam, M.A. ...	62
English Men of Action.—Monk, by J. Corbet ...	18
Essays by the late V. Thevar, M.A., by S. Sathianadhan, M.A., LL.B. ...	219
Essays on Educational Reform, by H. B. Quick, M.A. ...	221
Euclid's Elements of Geometry, by S. Ray, M.A. ...	119
First Lessons in Tamil, by Rev. G. U. Rope, M.A., D.D. ...	527
Fall Notes on Grant's Grammar, by S. Radhakrishna Aiyar, M.A. ...	528
Gai Julii Caesaris Bello Civili Commentariorum, by M. Montgomerie, M.A. ...	647
Gardiner's Companion Atlas to the Student's History of England ...	590
Gardiner's School Atlas of English History ...	590
Gardiner's Student's History of England ...	652, 73
Geometrical Deductions, Bk. I, by Blackie and Thomson ...	270
Gorse's, History of the 18th Century Literature ...	63
Gray's Poems, by J. Bradshaw, LL.D. ...	529
Green's Short History of the English People ...	647
Great Speeches from Shakespeare's plays, by W. J. Dalgleish, M.A. ...	470
Handbook of English Literature, by R. McWilliam, B.A. ...	17
Hazlitt's Lectures on the English Poets, by G. Maddox, B.A. ...	267
Hereward, the Wake—Last of the English, by C. Kingsley ...	469
Emily Jones' Manual of plain Needle work and Cutting-out ...	120
Lessons in Applied Mechanics, by J. H. Cotterill and J. H. Slade ...	269
Lessons in Domestic Economy, by E. A. Keely ...	267
Lopngmans' Indian School Arithmetic, by J. Adam, M.A. ...	591
Macaulay's Essay on Addison, by A. E. Duchesne, B.A. ...	268
Macaulay's Essay on Addison, by P. J. Moss, B.A. ...	403
Macaulay's Essay on Addison, by P. T. Srinivasa Iyengar, M.A. LL.B. ...	263

127003

THE MADRAS
JOURNAL OF EDUCATION
VOL. V NEW SERIES

JL
T2m211, m87
m91.5
127003

REVIEWS—(continued)—	PAGE
Macmillan's French Readings for Children, by G. E. Fasnach	529
Madras Presidency College Calendar for 1891	269
Marsden's Geography of the Madras Presidency	470
Madrasa's Village Class for Drawing and Wood-carving	588
Matriculation and Upper Secondary Algebra Papers with Solutions, by V. R. Venkatarama Aiyar, B.A., L.T.	469
Mechanics for Beginners, by Rev. J. B. L., M.A.	650
Arithmetic for Primary Schools, by R. B. East	333
Mill's System of Logic, Ratiocinative and Inductive	591
Mill's Elementary Class-book of General Geography	19
Milton's Comus, by W. Bell, M.A.	268
" by R. Harvey, M.A.	268
" by S. Sathianadhan, M.A., LL.B.	268
Moliere Les Precieuses Ridicules, by G. E. Fasnach	529
Narasinga Row's Khamwar Glossary of Kanarese Words	649
Notes on Bradshaw's Anthology, by J. Deighton	267
Notes on Lyall's Warren Hastings, by R. Harvey, M.A., LL.D.	589
Outlines of the Principles of Education, by J. A. Reinhardt, Ph.D.	400
Outline History of Education, by J. A. Reinhardt, Ph.D.	399
Palghat Victoria College Calendar for 1891-92	527
Postalossi, by A. M. Kellogg	400
Physique—A journal of education	120
Principles of Political Economy, by J. S. Mill	...
Ray's treatise on Elementary Algebra and Algebraical Arithmetic	121
of India, Clyde and Strathairn, Sir O. T. Burne, K.C.S.I.	593
Saguna	334
Scott's Lay of the Last Minstrel, by E. H. Elliot, B.A.	268
Scott's Lay of the Last Minstrel, by S. Anantanarayana Aiyer, B.A., B.L.	268

REVIEWS—(continued)—	PAGE
Shakespeare's King Lear, and Antony and Cleopatra, by K. Deighton	...
Shakespeare's Richard II, by R. K. Chambers	...
Sir Philip Sidney's Apologie for Poetrie, by E. S. Shuckburgh, M.A.	...
Southey's Life of Nelson, by M. Macmillan, B.A.	...
Subramania Aiyer's First Book in Translation	...
Tennyson's Coming and Passing of Arthur, by E. J. Rowe, M.A.	...
Tennyson's Enoch Arden, by W. T. Webb, M.A.	...
Text-book of English History from the earliest times, by J. Airy	...
The Adventures of Oliver Twist	...
The Book of Praise from the best hymn writers, by R. Palmer	...
The Children's Casket of Poetic Gems, by D. N. Wadie, M.A.	...
The Children's Garland—Golden Treasury Series	...
The Elements of Euclid, by H. Deighton, M.A.	...
The F. A. Examination Algebra Guide, by V. R. Venkatarama Aiyar, B.A., L.T.	...
The First Book of Milton's Paradise Lost, by C. P. Mason, B.A.	...
The Fourth Form Reader, by W. E. Hoare, B.A.	...
The Golden Treasury—by F. T. Palgrave	...
The Harpur Euclid, Bks. I—IV, by Mangley and Phillips	...
The Illustrated Primary Arithmetic, by Rev. Allen Maxwell	...
The Introduction to a Hand-book of Geography	...
The Lawrence Asylum Press Almanac for 1891	...
The Pilgrim's Progress, by J. Bunyan	...
The Royal English Classics—Addison, Goldsmith, Macaulay, Milton, Scott	...
The Story of India to the death of Aurengzebe and an Elementary History of British India, by E. S. S., B.D., and J. T. Lawrence, M.A.	...
The Trigonometry of One Angle, by Rev. J. B. Lock	...

REVIEWS—(continued)—	PAGE
The Yugas, by M. Rungacharya, M.A.	592
Tout's Short Analysis of English History	648
Virgil's Bucolics, by T. E. Page, M.A.	529
Warren's Elementary Treatise on Mechanics, Part II, Dynamics	270
Webster's International Dictionary	272
Ruling Passion—The	347
Schools—Recognition of	145
Schoolmasters—The Position of	5
Sense—Education	8
Short-hand Writing	598
Student's Column—The	381, 462, 521, 583, 643
Student Life and Aesthetics	337
Teacher—How can a—become master of his business	75
" —How can the—Grow in Efficiency	236
" —Increased Facilities for Training—in England	312
" —The—as a determining force in the life of the Child	173
" —The importance of general Reading to the	259
" —The Vocation of Higher	29
Teachers—The Training of	127
" —Our	374
Teachers' Associations	202, 441
" —Types of	78
" College—The	5
Teaching Universities	363
Text books—Choice of—for aided schools	23
Time-tables	492

U	PAGE
University of Madras—Registrarship of the	4
" The Appointment of Fellows to the	53
" B.A. Pass list for 1890	86
" New Fellows for 1890	101
" B.A. Pass list for 1891 (optional branches)	191
" Circular letter of the—to the Principals of Arts Colleges	198
" Examiners and Assistant Examiners for 1891-1892	240
" Matriculation Examination—Revised bye-laws	245
" First-in-Arts Examination—Revised bye-laws	247
" Subjects for Examination	352
" L. M. S. Degree Examination Pass list	408
" M. B. and C. M. Degree Pass list	408
" Senate Meeting	567
University to the Public School—Relation of the	324
Upper Secondary Classes	378, 436
Upper Secondary Optional subjects	497
W	
Weldon, Mr., and his critics	208
Y	
Young Men's Christian Association	7

we shall strive earnestly to avoid this fault, for fault it is, in the future. Our only wish is while we still have health and strength to be useful to the rising generation of educationists and those they are educating. The time cannot be far distant when we shall be pushed from our stool, and our best consolation then will be to know that, in our day and generation, we did something to help on the intellectual, physical, and moral advancement of the youth of India.

We cordially wish all into whose hands these pages may come, a HAPPY AND PROSPEROUS NEW YEAR.

STATISTICS OF EDUCATION FOR 1889-90.

The following table exhibits in a compendious form the statistics of attendance in schools and colleges in the three Presidencies at the close of the last two official years:—

Province.	1888-89.		1889-90.	
	No. of schools.	No. of scholars.	No. of schools.	No. of scholars.
Madras	18,931	552,152	20,512	600,551
Bengal	64,626	1,482,150	66,285	1,491,923
Bombay	11,732	532,853	11,716	591,627

It will be seen that the figures given above are most favourable to the Madras Presidency. The year 1888-89 was one of marked progress in Madras, the number of schools having increased by 9.08 per cent. and that of pupils by 9.19 per cent., and last year again there was a further advance of 8.4 per cent. in schools and 8.8 per cent. in pupils. A comparison of the figures as they stood at the commencement, middle, and close of the last decade is given in the margin and exhibits the progress in education in this Presidency in a still more striking manner.

Even taking into account public institutions, that is schools and colleges which conform in every respect to the regulations and

standards of the Education Department, the comparison is most favorable to the Madras Presidency, as shown below.

Provinces.	1888-89.		1889-90.	
	No. of public institutions.	No. of pupils.	No. of public institutions.	No. of pupils.
Madras	15,379	492,514	16,228	517,055
Bengal	52,919	1,364,866	52,418	1,352,320
Bombay	8,642	507,752	8,879	523,718

The following figures show the educational condition of the three provinces from another aspect. In Madras 22.8 per cent. of the male population of school-going age and 3.4 per cent. of female population of school-going age are under instruction. In Bengal the proportions are 27.6 per cent. for males and 1.8 per cent. for females. And in Bombay 29.2 and 3.8 per cent. respectively.

The Madras Educational Report has not as yet been finally passed by the Government. We shall, therefore, reserve further remarks on the subject for a future issue.

A RE-EXAMINATION IN SANSKRIT.

The Registrar of the Madras University has issued the following notice regarding a re-examination in Sanskrit for the B.A. Examination (Language Branch.)

"A re-examination in Sanskrit Text books and Grammar for the B.A. degree will be held in Madras on the 30th January 1891.

"All candidates who secure the required minimum number of marks both in English and in Sanskrit at the Language Branch examinations for the B.A. degree held on the 20th November and following days will be required to attend the re-examination, failing which any marks obtained by them in the paper on Sanskrit text books and Grammar at the said Language Branch examination will be deducted from the total number of marks. The class and rank of candidates who pass the re-examination will be determined by the number of marks obtained at the re-examination and not with reference to the marks obtained at the Language Branch examination. Candidates who pass both in English and in Sanskrit at the Language Branch examination will be admitted provisionally to the optional Branch examination in January.

1891; but in the event of any candidates who have been provisionally admitted to the optional Branch Examination eventually failing to pass in Sanskrit, the optional Branch examination will be held invalid, but the fee paid for such examination will be held in reserve for a future examination."

We much regret the necessity for such a notice as it shows that something went very wrong with the first papers set in Sanskrit.

We understand that on this occasion the candidates who became acquainted with the nature of one of the papers were not to blame. As regards the notice itself we are sorry to have to say that the language in which it is couched is so obscure that we, in common with others, cannot clearly grasp the Syndicate's intention. The words "failing which" (attendance at the re-examination) "any marks obtained by them in the paper on Sanskrit text-books and Grammar at the said Language Branch Examination will be deducted from the total number of marks" seem to imply that, if, after such deduction, they still secure the requisite minimum; they will be held to have passed even though they do not attend the re-examination. This interpretation seems, however, to be knocked on the head by the concluding paragraph of the notice.

THE REGISTRARSHIP.

We learn from a circular letter received from a gentleman who intends coming forward as a candidate for the vacancy that Dr. W. H. Wilson, the present Registrar of the University of Madras, does not intend to offer himself for re-election.

The office of Registrar is no sinecure; the emoluments are small and the work exceedingly heavy and responsible. We have long held the opinion that the Madras University both requires and can well afford to pay for a full time Registrar. It should be quite possible to get a good man for the post on Rs. 800 rising to Rs. 1,000 a month.

Dr. Wilson, the retiring Registrar, has deserved well of the University. He has not pleased everybody, it is true, but he has shown great administrative ability, and in his hands the interests of the University have been well looked after. Its finances have of late years greatly improved, owing, no doubt, largely to the enormous increase in the number of candidates presenting themselves for the various examinations, but in no slight measure also to the careful way in which Dr. Wilson has looked after the expenditure.

THE TEACHERS' COLLEGE, SAIDAPET.

According to the revised Code of Rules applicable to the Teachers' College, the examination of the students is to be entrusted to a Board, consisting of a Chairman and of at least two members, appointed for a term of three years by Government on the recommendation of the Director. The Honourable the Governor in Council has appointed the following gentlemen as members of the Board of Examiners:—

President.

MR. G. BICKLE, Acting Inspector of Schools, Central Circle.

Members.

DR. D. DUNCAN, M.A., Principal, Presidency College.

MR. J. ADAM, M.A., Principal, Pachaiyappa's College.

REV. W. SKINNER, M.A., Professor, Christian College.

M.R. RY. P. VIJAYARUNGA MUDALIYAR, (SECRETARY).

To this Board will also be entrusted the duty of examining the students in the methods of teaching technical subjects, in view of granting them certificates of competency to teach such subjects. We believe that the same Board will also conduct the examination in Method and School Management.

The appointment of an independent Board of Examiners will, no doubt, tend to improve the efficiency of the College and will result in a higher value being attached by Managers of schools to the certificates granted to the students. The system has worked well in the Madras Medical College and in the College of Engineering. That the men turned out by the College of Engineering under the new scheme are superior to those educated under the old is clearly seen by the readiness with which their services are taken advantage of by employers of labour.

THE POSITION OF SCHOOLMASTERS IN ENGLAND AND IN INDIA.

MR. DENHAM, the new Vice-Principal of the Teachers' College, read a very interesting paper full of important information on the subject of "the position of Schoolmasters in England," on behalf of the Teachers' College Association, Saidapet. The view taken by the lecturer is, we are afraid, a little too pessimistic; but some of the facts adduced by him in support of his remarks cannot be ignored. He pointed out that the profession of teaching is being overstocked, because "year after year

hundreds of men from the Universities with too much conscience to enter the Church and too little money to take to Law, as a profession saw no alternative but to swell the ranks of teachers." The highest salary a man of good birth with first class honours could get as a teacher in a public school was £200 a year and the average salary in a good Grammar school ranged between £100 and £150 a year. As for the Secondary Masters in England, Mr. DENHAM said, "they are as a class without position and with but few prospects." The existence of a large number of private schools started and run by mere adventurers does not in any way tend to raise the position of private Schoolmasters. The remedy proposed by Mr. DENHAM, however, does not commend itself to us. He sees no effective remedy for this state of things but "in the action of Government, which should, as in other Countries, appoint a Board for the management of endowed schools, and formulate some tests of efficiency in teaching before giving appointments to teachers." Such a step would seriously retard private enterprise in the matter of education. The high educational status of Great Britain is chiefly due to private activity and anything that gives the State undue power over private agencies engaged in the cause of education would be a retrograde policy. Mr. DENHAM's experience of the Indian system of education is limited, but it will not be long before he will find out what results the very policy he advocates has produced in India. As Dr. MILLER remarked:—"It is not by shoving all upon Government or Government Departments, that real growth and progress can be made. There is far too great a tendency towards that here in India..... Government Departments and various bodies can do much, but the people themselves should furnish the national leaders."

The fact of the matter is that in England, as also in India, teaching is not regarded as a profession. Any person who has taken a degree or has passed a public test thinks himself competent to be a teacher, and here in India when a young man fails to become a clerk in a Government office or to qualify for any of the professions he ends by becoming a schoolmaster. The pressure that is now being brought to bear by the Department on Managers of schools to employ qualified men cannot but be productive of much good. But, on the other hand, there is another aspect of the question which should not be ignored. It may be said without exaggeration that in India the schoolmaster's vocation is the least remunerative among professions or callings. The number of Government institutions is becoming more and more limited and the desire for economy on the part of the managers of private institutions has led them to appoint Assistants on low salaries. The following particulars relating to the average remuneration of teachers

is taken from the Report on Public Instruction for the Madras Presidency for 1888-89. Trained graduates are able to secure appointments on salaries varying from Rs. 40 to Rs. 75 per mensem; trained F.A.'s, appointments between Rs. 20 and Rs. 40; and trained Matriculates, between Rs. 15 and Rs. 40. Untrained graduates are able to secure appointments between Rs. 25 and Rs. 50; untrained F.A.'s, between Rs. 15 and Rs. 30; and untrained Matriculates, between Rs. 10 and Rs. 20. There is an appreciable difference between the status of untrained teachers and that of trained teachers, but at the same time it must be admitted that the remuneration which even a trained man is able to command is exceedingly small. Neither is the position of Primary teachers in any way better. Trained teachers in Primary Schools earn, it would appear, between Rs. 7 and Rs. 15 approximately, and untrained teachers between Rs. 3 and Rs. 8 per mensem.

THE YOUNG MEN'S CHRISTIAN ASSOCIATION, MADRAS.

We have watched with great interest the gradual development of the YOUNG MEN'S CHRISTIAN ASSOCIATION, MADRAS. The organization has been perfected and the Association has been incorporated under the Indian Company's Act XXI of 1860. A good Library is being formed. The Reading Room is already one of the best in Madras and contains all the leading Indian, English and American magazines and newspapers, secular and religious. A restaurant has been opened which is proving to be an invaluable social adjunct. The number of members, Christian and non-Christian, has reached 200. A series of very able lectures was delivered during last year and another series has been arranged for in the current year. A Singing Class has been successfully conducted during the last six months. The latest development is the organization of the physical department. A Cricket Club has been formed, in which several European members take an active part. It is, we hear, under contemplation to open a Gymnasium. The success of the Association so far reflects great credit on the Board of Directors and on Mr. D. McConoughy, the energetic Secretary. We trust that the Director of Public Instruction will be able to render all the aid he can in developing it still further on its secular side. We would take this opportunity of suggesting the opening of evening classes in Short-hand writing, Book-keeping and Commercial Correspondence.

SENSE-EDUCATION.

(Concluded from the December issue.)

Let us take an example to shew in a practical way what an influence sensation possesses in determining the pupil's power of realising the description of unfamiliar objects. If we were giving, say, a lesson on English weights and measures to a class of Hindoo pupils, what should we do? Assuming the pupils to be familiar with the tola, we should inform them (for example) that the ounce avoirdupois was $2\frac{1}{2}$ times the tola. Or, better still, we should produce before them two and a half tola weights and let them feel for themselves, balancing them in their hands and contrasting the tola with the ounce. Thus we should either appeal to the results of past acts of sensation, or we should then and there cause the pupils to exercise afresh their powers of sensation. In this way the conception of an ounce would be made, and the pupils would readily call it up whenever required.

But if we merely state, to pupils ignorant of the tola, that an ounce is two and a half tolas, what have the pupils gained? Certainly no fresh idea. And why? Because there has been no appeal to sensation, either former or present. The class may learn by heart the words "an ounce is two and a half tolas," but the words only are their gain, and for all real educational purposes might with almost as much advantage have been derived from the Choctaw or Sionx vocabularies.

Of course I am far from saying that any teacher would be so utterly incapable as this extreme instance would imply, but I fear very much that in cases of a slightly greater degree of complexity the fault which lies at the bottom of this would be recognized on a little scrutiny. There is no sounder maxim for the teacher than 'Proceed always from the known to the unknown,' but it is not so generally recognised that *nothing is known* unless it is based on sensation,—except of course as a mere string of meaningless words.

If this were acted upon as a fundamental principle of our school work, we should not hear of such monstrous departures from all true method as a lesson in science consisting of the reading aloud of a text book by the teacher—with the inevitable result that the scholars eagerly procure the said text book and with a painful perseverance worthy of a better cause proceed to commit its words to memory—utterly regardless of the ideas which those words ought to convey—but which they never can convey to minds innocent on the percepts of which those ideas are built up.

It is this substitution of words for ideas which is at the root of a great deal of the superficiality of school instruction. Given the idea, the name which we give to it—the label which we place on the sack, to borrow a familiar metaphor—is a mere matter of convention. But the name without the idea is worse than valueless—since it may induce the scholar to suppose that he really does know something.

To take another example of what I mean. I once had the misfortune to be present at a lesson in which the teacher wrote on the Black Board a list of the names of the chief minerals composing the earth's crust, which the scholars then committed to memory! What a very different effect would have been produced during that wasted three quarters of an hour if the teacher had taken one of them (say silica) and exhibited specimens, causing the pupils to handle them and inspect them. He might have got them to have an idea of the crystalline structure, of the wonderful universality of its appearance in nature as sand, flint, etc., so that even if totally ignorant of its name they would at any rate have gained some distinct idea as to its nature. Then the name might follow—the sack having been filled, the label should be put on.

But beyond the ordinary routine of school work as at present arranged I think there is much to be done for the cultivation of the senses in directions which at present are only regarded as secondary and of minor importance—to be taken up if time can be spared from the average mental drill.

How much is done for example to train the eye to the sense of form, of colour, of discrimination of distance? Or the ear to the perception of the nice gradations of sound? Or the "muscular sense" to the realisation of the meaning of effort?

Of course all pupils are not to be trained to be artists or musicians, or experts of any description whatever, but how shall we hope for a wider culture among our students, how expect from them any particle of originality, when the prime requisites for that culture and that originality are neglected in favour of subjects, which, though of the highest importance in themselves, should follow and not precede that systematic training of the senses which I venture to regard as the most important (because fundamental) requisite in education and without which the studies for which that training is neglected cannot attain to their true perfection?

A. E. D.

NEWS AND NOTES.

LOCAL AND INDIAN.

The Board Normal School, Yeddapally, Nilgiri District, has been closed.

Government has sanctioned the appointment of an additional Inspecting Schoolmaster in the Tanjore District.

In the Anantapur District Report the success of a Brahmin widow in the last Primary School examination is mentioned.

Machine-knitting and Hand-knitting have been added to the list of trades specified in Article 1, Chapter IX of the Grant-in-Aid Code.

The Rev. H. D. Goldsmith, M.A., has returned to Madras. The Theological Class of the C.M.S. will be reopened under his supervision at an early date.

A School for Muhammadan girls on the Salary Results system is to be opened by Government at Chatrapur in the Ganjam District from the 1st of this month.

The Rev. T. R. Waltenburg, M.A., (Oxon), has taken over charge of the Harris School from the Rev. M. G. Goldsmith, who will devote his whole time to purely evangelistic work.

We draw the attention of Managers of Girls' schools to the particulars of the Needle Work Exhibition of the National Indian Association to be held in March next, which we publish in another column.

The Director of Public Instruction has ruled that all correspondence with Managers of Lower Primary Schools should be conducted by Sub-Assistant Inspectors and not by Inspecting Schoolmasters.

Mr. S. Sattlianadhan, M.A., LL.B., Assistant to the Director of Public Instruction, is to be placed on special duty for three months from 1st January, in connection with the revision of the Grant-in-Aid Code.

The number of female students in the Madras Medical College is increasing. In 1888-89 there were thirty-four and in 1889-90 forty-six, of whom forty were Europeans and Eurasians, and six Native Christians.

The Rev. W. H. Blake, B.A., Principal of St. Peter's College, Tanjore, has returned from leave from England. During his absence the College has been ably conducted by Mr. Isaac Darfiel, B.A.

The Director of Public Instruction notifies that he has recognised the C.M.S. Preparandi Institution, Masulipatam, as a Training Institution of the Primary Grade under Article 1, Chapter VI of the Grant-in-Aid Code.

We regret to hear that the Court of Wards, which has assumed charge of the management of the Pittapur estate in the Godavari District, has resolved to close the Pittapur High School and the Cocanada Girls' School.

Under section XII of Act XXVII of 1857, the Honourable the Governor in Council is pleased to authorize the affiliation to the Madras University of the Wardlaw Institution, Bellary, up to the First Arts standard, with effect from the 1st January 1891.

Notice is given that, in accordance with Government Notification dated 20th June 1889, No. 47, the Upper Secondary Examination (in the compulsory branches only) will be held on Monday the 4th May next and following days at the different centres.

The Senate of the Calcutta University has resolved on sweeping changes. If it can get the consent of the Government of India to its proposals, it is intended to convert the University from an examining into a teaching University by the appointment of University Professors.

In G. O. No. 980 of 18th December 1890 the Madras Government accords sanction to the Director of Public Instruction for the purchase of 120 copies of Mr. Barrow's *Educational Calendar and Directory* for distribution among the various educational officers.

We are glad to learn that Sir Alfred Croft, Director of Public Instruction, Bengal, has ordered a large number of copies of Mr. S. Sattlianadhan's excellent little book, *Four Years in an English University*. It should find a place in every Library and be freely given as a prize.

In the course of last year we issued a prospectus regarding a *Student's Own Magazine*. At that time the Editor could not foresee

his removal from Madras. For the present the scheme is in abeyance, but should circumstances prove favourable, the Magazine may yet see the light.

Rev. E. F. Davies, M.A., (Honours), Trinity College, Cambridge, and an Assistant Master in the City of London School has been appointed Principal of the Doveton Protestant College. He is expected to arrive in Madras and take up his duties sometime this month. Mr. Davies' services have been engaged for 3 years.

Mr. George Maddox, B.A., Acting Principal of the Doveton College, has been appointed Headmaster of the Lawrence Asylum, Lovedale, Ootacamund, in place of the late Mr. Armstrong. We congratulate both Mr. Maddox and the Lawrence Asylum. The Doveton College, by losing Mr. Maddox, will find that it has lost a tower of strength.

The Director of Public Instruction notifies that Part I of the Elements of Telugu Grammar, specially prepared and published under the orders of his office, is intended to supersede Seshayya's Telugu Grammar, and that the former book should be used in future in all the standards in which Seshayya's Grammar is used at present.

There is a proposal now before Government to transfer the Madras Industrial School to some building near the C. O. Asylum premises and to work them together as a quasi Government Industrial School in connection with the School of Arts. We hear that a Committee under the presidency of the Director of Public Instruction will shortly be appointed to elaborate the scheme.

Miss Askwith, the energetic Manager of the Sarah Tucker Institution, Palamcottah, has opened a school for blind children in connection with that institution. We hear that the school is attended by several children and that a teacher is being especially trained for them. The Manager is reported to have had the Reader for the first standard specially prepared for the children.

We hear that A. J. Saldanah, a Roman Catholic Christian of Mangalore who was a boarder student in the Senior F.A. Class, St. Joseph's College, Trichinopoly, died on the 4th of December owing to brain disease caused by excessive study. It appears that he passed the Matriculation in 1888 as the first in the Presidency. He was a candidate for the F.A. examination of 1890.

Mr. Justice Birdwood has been appointed Vice-Chancellor of the University of Bombay in succession to Principal Wordsworth, upon whom that University has just conferred the high and rare honour of its LL.D. degree. Dr. Wordsworth is now retiring on a well-earned pension and is to be succeeded in the Principalship of the Elphinstone College, Bombay, by Professor Oxenham.

The Director of Public Instruction has sanctioned a sum of Rs. 273-5-4, being one-third of the cost of a new Gymnasium Building, for the Victoria College, Palghat. The Municipal Council, Palghat, has also provided in the current year's budget a sum of Rs. 337 for new apparatus. When the Gymnasium is completed and fitted up, the College at Palghat will possess one of the best gymnasia in the Presidency.

Mr. C. Schwann, M.P., in an address which he delivered at a Hindu Girls' School said: "I learn that amongst the Parsee community 100 per cent. of their children are at school; of the children of the English and Portuguese community some 60 per cent; while of the Hindu races only 2 per cent. of their children are at school; and 98 per cent. are running about without any education being given to them."

The Commissioner for the Uncovenanted Civil Service Examinations has notified that for the past year no certificate will be issued to a pupil-candidate under Article 12 of the Government Notification No. 7 of the 29th January 1889 relating to the Primary School Examination, unless he produces a certificate of having had the qualifying attendance from an inspecting officer at the date of his examination. A certificate will, however, be issued to him if he pays the fee prescribed for a non-pupil.

Under G. O., Revenue, No. 515, dated July 4th, 1890, a committee, consisting of the following gentlemen, has been appointed by the Director of Public Instruction to revise the curriculum of studies of the College of Agriculture and to report on other points relating to the training of the students, theoretical and practical.—Dr. D. Duncan (Chairman); Members: Mr. Murray Hammick, C.S., Mr. Edgar Thurston, Mr. John Adam; Capt. Love, R.E., Surgeon G. L. Van Goyzel, Mr. A. Subba Rao, Mr. Walter Keess (Secretary).

The schools of the North-West have a new departure before them as regards exercise and sports in the institution of a cricket tournament and inter-school athletic meeting, which has been arranged for as an annual fixture, and is to be held this year at Aligarh on December 23rd to 26th, inclusive. The competition will take place among zillah and aided schools in the first circle, which comprises the Agra, Meerut and Jhansi Divisions. The Inspector of Schools, Mr. Bouflower, to whose initiative the event is due, will superintend the proceedings. The boarding houses of the M. A. O. College and the Aligarh Zillah School, will be placed at the disposal of the various teams and competitors in the sports, and prizes sufficiently handsome to attract will be awarded to the winners. There can be no doubt that this tournament should give a great impetus to athletics and cricket throughout the province. It is a result of the special attention paid to physical training by the Director of Public Instruction of these provinces, under whose sanction the meeting is being held.

LITERARY AND GENERAL.

In Mr. Hewitt's *Manual of our Mother Tongue* there are many valuable and highly practical hints for students about to "suffer examination."

Monsieur Carnot, President of the French Republic, has translated into French Shakespeare's "Macbeth," "Romeo and Juliet," and "The Winter's Tale."

The first Inspectress of Primary schools in France has recently been appointed. The law permitting women to be so employed was passed on 19th July, 1889.

Steps are being taken to establish a Medical School for women at Glasgow in imitation of that which exists in Edinburgh. This will be the fifth institution of the kind in the United Kingdom. These institutions are intended to meet the demand for lady doctors in the East.

One of the latest American inventions is a "travelling school." A St. Petersburg paper states that the City of Moscow has been visited by a whole school from Chicago, consisting of sixteen pupils with a master and tutors, who passed several days at each place, after visiting all the principal towns of Western Europe.

Mr. Welldon, the Headmaster of Harrow School, makes the following recommendation for a new scheme of education to be adopted in public schools:— (1) To lay down some general basis of primary studies; (2) to study the special characteristics of each and to be guided accordingly; (3) to encourage specialization in the higher classes.

Mr. Welldon lays the greatest stress on specialization. "In a world of illimitable variety," he says, "where no two waves of the wide ocean, no two leaves of the forest are alike, it is only by paying regard to individualities of temper, taste, ability and opportunity, that the educational years can be used with best effect; all the preparatory part of education has for its object the discovery of the true individual goal."

The *Christian Patriot*, the able organ of the Native Christian community, is to be issued in an enlarged form. A new feature of the Journal will be a series of original articles on living religious problems by eminent thinkers, such as Prof. George P. Fisher, Dr. Cunningham Geikie, Rev. Donald Fraser, Canon H. B. Tristram and others. The *Christian Patriot* now publishes a London letter every week from Mr. W. T. Stead, the editor of the *Review of Reviews*, and Dr. H. S. Lunn.

Prof. Max Müller told his hearers, the other day at the opening of his Oxford University lectures, that most lectures that are an hour long are too long. A lecture must be shorter than a sermon, says this eminent authority. A sermon, he slyly observed, may conveniently be followed with the eyes closed, but an hour is too long a time for a lecture that keeps people wide awake. It is the last quarter of an hour that makes mischief for a dragging lecture or a tedious play.

Mrs. J. Bryant says:—"A mind is sound—sound in perception, sound in judgment, sound in reasoning—when, and when only, it is active in the rejection of inconsistencies between thought and things, and wide awake, therefore, also, to receive every scrap of information that comes to it, shedding new light of consistency or inconsistency on its old contents. It must be, at one and the same time, an open, docile, receptive mind and a strictly accurate, logical mind, insistent upon seeing truth for itself solid and transparent through and through."

The following, according to an American Educational Journal, are a few of the most important principles that should be kept in view by every teacher in his work:—(1) That an educational principle is in every mind, and we can only set it to work; (2) that there should be all aroundness in the teacher's aim; (3) that the child's horizon must be widened daily; (4) that all teaching must be self-teaching; (5) that primary instruction must be concrete; (6) that the teacher must proceed from the known to the unknown and not be dogmatic; (7) that facts must go before causes—the concrete before the abstract.

The largest university in the world is said to be the great Moslem University at Cairo, founded in 975, with its 10,000 pupils and 370 professors. The pupils have no benches or chairs, but study, eat and sleep on blankets or straw mats. The Koran is the only book used for grammar, law, physiology and theology, and the students study it, learn it, and repeat it continually. The professors receive no salary, but are supported by private instruction, by copying books, and by presents from rich scholars. From this great university goes forth annually a small army of fanatics whose whole influence is entirely and constantly exerted against progress and reform. Their creed and war-cry is "There is one God, and Mohammed is his prophet." These men are imbued with prejudice, and eager to war both with Christianity and with heathenism.

The question of the admission of women to the Bachelor of Medicine examination came on for final vote in Congregation at Oxford, on Nov. 18, when it was rejected by the narrow majority of four in a House of 154 members. In all the preliminary stages of voting there had been a small majority in favour of the statute, the numbers on the last occasion being 34 for the statute and 33 against. Prof. Case, who throughout has offered the most vigorous opposition to the proposal, again moved its rejection, and urged the house that there was every facility in London for women to study medicine apart from men. He was supported by the Rev. J. R. King. On the other hand, the Rev. W. W. Jackson (Exeter College) and Mr. Arthur Sidgwick (Corpus) spoke strongly in favour of the statute. On a division there were in favour of the new statute, 75; against, 79; majority against admitting women to the medical examinations of the University, 4.

REVIEWS AND NOTICES OF BOOKS.

THE LAWRENCE ASYLUM PRESS ALMANAC FOR 1891. Madras: Published by G. W. TAYLOR at the Lawrence Asylum Press. Price Rs. 5, full cloth.

We have to acknowledge with thanks the receipt of an advance copy of the above well known Almanac. The present volume is up to the usual high standard of the previous ones. A good deal of new and interesting matter has been added, while the whole of the old matter has been revised and brought up to date. It is unnecessary for us to write much of a work which has attained such wide celebrity. We need only reiterate what we said of last year's issue that it is an indispensable work of reference and as such should find a place on every office table.

LONGMAN'S HAND-BOOK OF ENGLISH LITERATURE by R. McWILLIAM, B.A. From A.D. 673 to the Present Time. Price 4s. 6d: London, Longmans, Green & Co.

We have already reviewed this book in separate parts, and are glad to have the complete one-volume edition. We thought the parts, as they came out, of unequal merit, but upon the book as a whole we have only praise to bestow. It is, as the author intended it to be, "a simple and interesting story of the great English Writers." Mr. McWilliam has, by selecting numerous illustrative passages, from the authors he treats of, endeavoured to kindle enthusiasm in the minds of his readers for all that is best and most inspiring in English Literature. The work is printed in good bold type, and makes a suitable book for a library or a prize.

CHRONOLOGICAL OUTLINES OF ENGLISH LITERATURE by FREDERICK RYLAND, M.A.: London, Macmillan & Co.

This book is a decided gain to the teaching and learning, and, we would add, to the literary world. As the Editor says in his Preface, "the need of tolerably full Annals of English Literature is frequently felt by lecturers and by private students. They often require a colourless outline within which details may be placed, and which may serve to bring into prominence the chronological relations of the facts they deal with." The book is a handy one of 451 pages. It is got up in Macmillan and Co.'s best style, and leaves little or nothing to be desired in the way of printing and paper. Every College and School and Library should be supplied with a copy of the work; nor can any private library be considered complete without it.

ENGLISH MEN OF ACTION. MONK. By JULIAN CORBET. London: Macmillan & Co., 1889.

Mr. Corbet has certainly the merit of having done all a biographer can to make a hero of his subject. It is no fault of his that he has failed to place 'old George' on a higher pedestal than the not very lofty one assigned to him by posterity from Pepys to Macaulay. Strangely enough Mr. Corbet, for fear as he says of being led into exaggeration of praise, closes his story with the verdict of the former. "But, I know not how, the blockhead Albemarle hath strange luck to be loved, though he be (and every man must know it) the heaviest man in the world, but stout and honest to his country." This exactly describes Monk. He was an Englishman—a Devonshire Englishman—first; then a born fighter, no matter for whom, and either by sea or land. In the breach at Breda, fighting for the Dutch against the Spaniards, or on the deck of the *Resolution*, fighting for the English against the Dutch, Monk was stout and honest, the man of action all over. But when he stepped into the political arena, he was nothing but a trimmer, and not a very brilliant trimmer either. True, his trimming was eminently successful, but it is very hard to say whence his success sprung, unless with Pepys we attribute it to luck. He gained the Pecksniffian nickname of 'honest George' and nicknames are always suspicious. His honesty consisted chiefly in not making up his mind until he was certain of the winning side, and his luck kept him out of situations where he might have been compelled to declare himself earlier. When his pocket and his Duchess backed the winning side, neither conscience nor loyalty had much to do with his decisions.

The supreme event of his life was, even on Mr. Corbet's own showing, about the least creditable. That, "the motto of politicians sitting at Westminster"—after Richard Cromwell's retirement—"was not Parliament, was a truth. He would perhaps have been slower to grasp had they treated him better in the matter of commissions." And when the final step was inevitable, his biographer ingenuously assures us that "his duty to his paymasters and his duty to his country were one." After this it reads very much like ballos when we are told, "erect in his saddle amidst the trampled snow sat the warlike figure of the great soldier of fortune, on whose sagacity hung the destiny of Britain." When, he reached London, he was simply pushed on by wittier men, and was made a Royalist against his will. Macaulay is unable to decide whether his conduct was due to "dissimulation or irresolution"; "What were at this time his plans, or whether he had any plan, may well be doubted." Hence Mr. Corbet is justified in saying, when at the critical moment Monk went to meet Charles at Dover; "every one agreed that it was he who had restored the King, but how and why no one could exactly tell." Yet our author calls him 'the Father of his Country'.

We have in Monk's career a curiously apposite instance of how history repeats itself. After Cromwell's recall from Ireland in 1650, he appointed Monk to be lieutenant-general of the Ordnance, and to the command of the regiment afterwards the famous Coldstreams. The significance of this," says Mr. Corbet, "it is hard to exaggerate. When we remember how fastidious Cromwell was about the private character of the men he worked with, it cannot but impress us with the extraordinary sense he must have had of his obligations to Monk. The highest military abilities would never have induced him to employ a man who was living in open contempt of the seventh commandment." What were the obligations that led Cromwell to attach less importance than Mr. Gladstone to the seventh commandment? He was afraid Monk would issue a *manifesto*. Monk when in Ireland had concluded an armistice with O'Neil with the privity of the independent leaders. Parliament and popular opinion condemned it. Hence the importance of shunting the responsibility. Cromwell and Monk, accordingly, had a secret conference at Milford Haven, whereat Monk agreed to become the scapegoat and even to accept the formal censure of the Commons. He lied through thick and thin to save Cromwell, but henceforth Cromwell was bound to him by bonds which no breach of the seventh commandment could sever.

Even were Monk a pleasing character, his life would be a difficult one to write. Except in one or two episodes, there was no individuality about it; it is indissolubly involved in the current of events. Monk was but a portion of a mass of drift-wood carried along with the current, and happened in the confusion to be pushed to the top of the heap. It is, therefore, almost impossible to write his life without writing the history of his times; and the less history there is, the less the interest. Mr. Corbet has striven valiantly to strike the medley, but we cannot say that he has been able to overcome the force of circumstances. His book is not interesting, and, despite the attempts at tawdry decoration, the hero remains a very poor tobacco-chewing character indeed.

AN ELEMENTARY CLASS BOOK OF GENERAL GEOGRAPHY, by HUGH ROBERT MILL, D.Sc., &c., London, Macmillan & Co.

The design of this book is so good that we deeply regret our inability to speak favourably of the execution. This is so hopelessly bad—as to both form and matter—that nothing short of rewriting by another hand would adapt it for use in schools. The author, in his preface, thanks the Editor, "whose careful revision and numerous suggestions have enhanced the value and improved the expression of these pages".

If this account of Dr. Geikie's labours implies any real work on his part, the book must have been a marvel of inaccuracy in both expression and statement before he laid his hand to it.

The author further tells us that he has taken care "to write simply and, if possible, forcibly". Simple writing here seems to mean ungrammatical writing; and forcible is the equivalent of "fine". With more important defects to call attention to, we must omit any specimens of mere ungrammatical composition; but one or two specimens of fine writing may be cited. Of Venice, it is said—

"A hundred and twenty islands linked by marble bridges support this Queen of the Adriatic, whose marble palaces rise straight from the warm glimmering water with broad landing stairs to which the silent gondolas glide. The lion of St. Mark still crowns its ancient column in one of the wide squares which lie between the network of canals."

The following refers to the half-breed *Gauchos* of the Argentine Republic.

"The wealth of the country is in the wide flat pampas. The solemn silence of these level seas of grass and flowers and the grandeur of the sunsets make the people living on the pampas love their country passionately."

There is also a superabundance of that sure sign, not of strength but of weakness, vague adjectives. Every thing large is 'vast' or 'huge', rivers, when not 'difficultly (sic) navigable', are 'strong' or 'mighty' or 'impetuous'; everything out of the common is 'glorious' or 'magnificent' or 'marvellous' or 'majestic' or 'renowned' or 'unrivalled'.

Dr. Mill also tells us that "care has been taken to be accurate in statements". The Doctor is very fond of two classes of statements,—one a class of very wide generalizations, the other a class of very brief summaries or condensations. We shall give samples of both from which our readers can judge of his accuracy.

The following extract is from a paragraph dealing with man as distinguished from 'the other animals'. It illustrates as well "fine writing" and Dr. Mill's ideas of what constitutes proof.

"It is truly said that all men are brothers. No contrast, indeed, could be stronger than that between the crouching black, low-browed, brutal, Australian aboriginal, who has no thought except how to satisfy his pressing wants, who cannot even make suitable" (suitable for Australia or for Prince's Street, Edinburgh?) "clothing for himself, and the erect, fair, educated native of northern Europe, whose high arched forehead suggests the generous nobility of his nature, and with whom his own personal needs obtain less attention than the welfare of his race. But between these extremes, there is a complete chain without any abrupt change from one link to another. Sometimes even amongst the most advanced people, there are individuals with the untamed instincts of savages, and in the lowest nations individuals

with some finer feelings rise far above the level of the rest. So it has been proved (sic) that all mankind forms one family, that all have descended from the same ancestors, although circumstances, such as those which gradually changed the appearance and nature of plants and beasts, have brought about some broad differences between the human dwellers in different parts of the world."

From Dr. Mill's premises the conclusion is quite as justifiable, that races of mankind sprung from different ancestors have been gradually assimilating.

"In Britain, in the United States, Germany, and France most of the great manufacturing towns are built on coal-fields." This, if correct of any of the countries enumerated, would be correct of Great Britain. How then is the pupil to reconcile it with this other sentence referring to Scotland? "Over the Lowland plain railways throng closely, joining the coal and iron mines and paraffin works of the interior to the busy manufacturing towns on the coast."

Here are two other examples.

"Christianity and Mohammedanism are unlike all other religions, in belonging to no special race or climate, and the former is steadily extending over the world, taking the place of many of the old race religions; which, as a rule, have become greatly degraded, and debase rather than elevate those who follow them."

"The Malayo-Polynesian section living in the islands of the Pacific and New Zealand are the handsomest and most graceful people of the Yellow type, and by their readiness to adopt Christianity and civilisation they are sharply distinguished from the people of the Black type, with whom they are often thoughtlessly classed."

We had marked a large number of similar passages but must content ourselves in the remainder of our space with what we find in the section on India—which we must admit to be, as far as our examination extends, the worst of a bad book.

Here is a generalization of the very wildest nature on 'the climate of India'.

"Great storms occur twice a year at the change of the monsoons. At some what irregular intervals of about eleven years the monsoon rainfall fails, there is no harvest, and dreadful famines have always been experienced in consequence."

Here is another.

"Like most Indian towns, it [Calcutta] is divided into two parts: 'White Town' containing the palaces and parks of the wealthy British inhabitants; and 'Black Town', crowded with the mud houses of native labourers."

We wonder where the well-to-do natives and the non-wealthy British dwell.

This section will also furnish examples of vicious condensation.

Here is a summary of the History of India under the East India Company.

"In the seventeenth century English adventurers formed the East India Company, and gradually increased the number of their *factories*, as the fortified trading stations were called. The gorgeous but tyrannical Mogul empire was demolished by the Mahrattas, a powerful native people of the north-west, (*sic*!) and these in turn were subjugated by Clive (*sic*!!) and other officers of the East India Company. A long struggle with the French for supremacy in India was decided in favor of the British in the middle of the eighteenth century, and from that time (*sic*!!!) the Company ruled most of the country, either directly or through residents at the courts of native princes."

Purely geographical condensations are equally erroneous. Thus we read of Ceylon, "this pear-shaped island rises in a very gradual slope from the north and more steeply from the other sides to Adam's Peak, the grand central mountain". Adam's Peak may be a grand mountain, but it is almost quite detached from the great central and much loftier mountain mass, containing the highest peak in the island, Pedrolallagalla. It is in fact this isolation that gives Adam's Peak, by no means a lofty mountain, its grandeur. But the gem of the whole book is the description of the Madras Presidency. The passage which we quote, in conclusion and without comment, contains all that is said about 'the benighted', except a short sentence on Cochin.

"Madras, with an artificial harbour on the surf-beaten coast, is the chief town and railway centre of Southern India. Lines passing southward traverse the little French colony of Pondicherry to most of the towns of the south coast, and branch inland to Bangalore, the largest town of the native State of Mysore, where gold is mined. The Nilgiri Hills, at the junction of the eastern and western Ghats, contain many favorite summer resorts, chief amongst which is Utakamund, a railway terminus."

We have to acknowledge, with thanks, the receipt of the following:—

BOOKS.

Rulers of India Series.—The Marquess Cornwallis, by W. S. Seton-Karr: Oxford, at the Clarendon Press, 1890.

MAGAZINES.

The *Journal of Education* (London) for December; The *Educational Times* for December; *Journal of Education* (Boston) for November; The *Boys' Own Magazine* for December; The *Christian College Magazine* for December; The *Secunderabad Parish Magazine* for December; The *Bombay Educational Record* for October; The *Student's Friend* for August; The *Private Schoolmaster* for December; the *Headmaster's Guide* for November.

CHOICE OF TEXT BOOKS FOR AIDED SCHOOLS.

The following very important order on the choice of Text books for Aided Schools has just been passed by the Government of India:—

From C. J. LYALL, Esq., C.I.E., Offg. Secretary to the Government of India; To The SECRETARY TO THE GOVERNMENT OF BENGAL, General Department.

Sir,—I am directed to acknowledge the receipt of your letter No. 532, Education, dated the 17th September 1890, enquiring whether the choice of text-books for aided schools is subject, under existing orders, to control on the part of the State, and asking for an authoritative interpretation of the following passage in the Government of India, dated the 10th January 1881:—

It should be understood that there is no necessity to restrict aided schools to the use of the text-book authorized for Government institutions. Any such interference with schools under private management would be inconvenient, and is clearly opposed to the general educational policy of Government.

2. In reply I am to say that the policy of the Government of India is to give to the managers of aided institutions as much freedom in their choice of text-books as possible, but that it is necessary to secure that text-books calculated to offend pupils who have no alternative but to attend the schools where they are used or give up education altogether, or by a lax standard of morality to do harm to those attending the school, are not prescribed in the courses in force at any school to which Government aid is given. So long as these conditions are fulfilled, the question of the use of text-books in aided institutions is one which the Government of India are content to leave the discretion of Local Governments and Administrations, and it will be the duty of the Local Government or Administration concerned to withdraw the Government grant from any aided school which persists in using a text-book to which objection is taken by the Education Department on one of the grounds stated above. The system in force in Bengal appears, from Sir Alfred Croft's memorandum dated the 25th June, to be in accordance with these views, and I am therefore to convey the approval of the Governor-General in Council to it.

I have the honour to be, &c.

C. J. LYALL,

Offg. Secretary to the Government of India.

Copy, with copy of the letter from the Bengal Government of 17th September 1890, and enclosure, forwarded to all other Local Governments and Administrations for information, with reference to Home Department Resolution No. 1/18 Education, dated the 10th January 1881.

By order, J. P. HEWETT,
Under Secretary to the Government of India.

CHILD MARRIAGE.

BY MRS. PECHY PHIPSON, M.D.

(Reprinted by special permission.)

An Address to the Hindoos of Bombay on the Subject of Child-Marriage, by Mrs. Pechy Phipson, M.D., delivered at the Hall of the Prarthana Samaj, Bombay, on the 11th October 1890.

GENTLEMEN, When, seven years ago, I came to India, I looked forward with interest to making a study of a people whose manners and customs and modes of thought differ in many respects from those of Western nations. In my previous travels in the East, taken for pleasure and relaxation, even the superficial acquaintance which a short tour permits had shown me that the East presents points of strong contrast with the West. Here, in India, I knew that my calling would bring me into close contact with the inner home life of the people, which, with a prolonged residence, would give me opportunities I had not before enjoyed of studying the oriental character. I came with no prejudices, I think I may honestly say, nor prepossessions, but as a student of life and character, and, so far as concerned the making of comparisons, quite willing to admit and to imitate traits of superiority. I have never yet travelled in any country without taking away with me much that was worth learning, without having improved my education. And there is much in your family life that excites my sincere admiration, much in the devout piety which appears to me to be a strong characteristic of the Hindoo mind which commands my respect, whilst the religious toleration which has, from time immemorial, been not only taught but practised by your race is an example to all the world in the very highest degree, for it is not the toleration of persons indifferent themselves to religion, but on the contrary the Hindoos have always presented the spectacle of a nation intensely devoted to its own faith and firmly convinced of its truth and reality and yet willing to live side by side with people of other creeds without intolerance and without interference.

But at present I am anxious to speak to you of a custom which prevails amongst you which, from the nature of my calling, has been brought prominently before me, and which, so far from being worthy of imitation, is so barbarous in its immediate effect and so disastrous to you as a race in its remoter action that it should at once be put a stop to. I know beforehand that I have the sympathy and support of the wisest and best amongst you, and that you need not so much persuasion as the support of additional arguments with which to break down a pernicious custom. It seemed to me, therefore, that I might be able to give you some assistance in this direction from my practical knowledge of the custom and its direct effects and my scientific knowledge of what must be its consequences to the Hindoo race in the future.

The practice of early marriages by Hindoos I was of course informed of by my reading before coming to India, but its mention in books was always coupled with the assertion that in India girls reach puberty at a much earlier age than in cold climates. Judge, therefore, of my surprise to find that so far from Hindoo girls being precocious in physical development they are much behind in this respect, that a Hindoo girl of fifteen is about the equal of an English child of eleven instead of the reverse, and that the statements made to the contrary by Englishmen, who have no opportunity of becoming acquainted with Hindoo family life, were totally misleading. In the first place they were under the impression that marriage never takes place before puberty, and secondly they accepted the Hindoo view as to what constitutes puberty. You know that unfortunately they were misled as regards the first point. I hope to show you in the second place that the idea which they accepted as correct is a totally mistaken one.

Now as regards that first point—the marriage of girls before even what is called puberty—I can hardly trust myself to speak so strongly are my feelings those of all Western—may I not say of all civilised people—in looking upon it as actually criminal. Ah! gentlemen, those of you who are conversant with such cases as I have seen, cases like those of Phulmoni Dossee which has just now stirred your hearts, to insist upon some change in the existing law, and others where a life-long decrepitude has followed to which death itself would have been far preferable, do you not feel with me that penal servitude is not too hard a punishment for such brutality? I am glad to think that a very large section of Hindoo men think with me. I have been repeatedly spoken to on the subject, and members even of those castes who are most guilty in this matter have expressed to me a wish that Government would interfere and put a stop to the practice. May I venture to suggest that caste influence should be brought to bear upon offenders in such cases? This is so powerful amongst you that a determined effort on the part of the educated members of the higher castes might effectually suppress the practice. With what abhorrence must a child regard the author of so much misery and suffering to her! It is a custom which renders affection in married life impossible; it is a retrogression from the early civilisation of your race; it is stigma on your religion; a blot on your humanity, which, were it known, would disgrace you in the eyes of the whole civilised world. Stamp it out at whatever cost from vulgar prejudice; blot out this stain upon your characters as men of honour and manly virtue.

But I pass from a custom which I know is abhorrent to many of you to that which appears to be still, though with many exceptions, the common practice amongst you. You say "We marry our girls when they reach puberty," and you take as indication of that stage one only, and that the least certain, of the many changes which go to make up maturity. It is the least certain because the most variable and dependent more upon climate and conditions of life than upon any true physical development. No one would deny that a strong country girl of thirteen was more mature physically than a girl of eleven brought up in the close unwholesome atmosphere of a crowded city; yet you say the latter has attained to puberty and that the former has not. Into such discrepancies has this physiological error led you. Without going into the domain of physiology for proof of assertion let me draw your attention to the very practical proof of its truth which you have in the fact well known to you all that girls married at this so-called period of puberty do not, as a rule, bear children till some years later, i.e., till they really approach maturity. I allow that you share this error with all but modern physiologists, but on the other hand other nations, from the Greeks downwards, have always recognised a distinction between puberty and nubility and have placed an interval of some years between them. Many proofs could be brought forward of this almost universal custom amongst the stronger nations of the world, but I will only emphasize my assertion by a paragraph from the work of an eminent American physician. He says: "While reproduction is possible at the beginning of puberty" and this is not puberty in your sense, but a much latter development, "science and experience alike condemn such early exercise of this important power. As in the male premature exercise of the sexual organs is, to use the words of Hufeland, the surest means of inoculating old age, so early maternity brings increased morbidity and mortality to the female, while her offspring will be less well developed, have less vital power, greater liability to disease and to early death than they would have had that maternity been delayed: the general law of both animal and vegetable world is that early reproduction gives an inferior product. Woman's form is not, as a rule, well developed before she is twenty years old; her pelvis, which has been called the laboratory of generation, has not its perfect shape until then; hence an earlier maternity is not advisable. Moreover, she lacks the mental and moral growth necessary for the grave responsibilities of motherhood. Modern physiology and large experience confirm the judgment of Plato, the wisest of Greeks, in his rule that 'a woman may bear children to the State at twenty years of age.' (Republic.)"

"The physician, whose duty is not only to heal the sick, but also to prevent disease and to improve the race, and hence who must be a teacher of men and women, should teach sound doctrine in regard to the injurious results of precocious marriage. Mothers especially ought to be taught, though some have learned the lesson by their own sad experience, that puberty and fertility are not equivalent terms, but stand for periods of life usually separated by some years; the one indicates capability, the other fitness for reproduction." (Darwin's *Obstetrics*, p. 91.) In short, the general maturity of the whole frame is the true indication that the individual, whether male or female, has reached a fit age to reproduce the species. It is not the small and unimportant symptom by which this question must be judged. Many things go to make up virility in man, the beard, the male voice, the change in figure and the change in disposition; and in girls there is a long period of development in the bust, in the hips, in bone and muscle; changes which take years for their proper accomplishment before the girl can be said to have grown into a woman. All this is not completed before the age of twenty. If the demand is made upon the system before that the process of development is necessarily interfered with and both mother and offspring suffer. Even in countries where the age of marriage is between twenty and twenty-five, where therefore the mother has not been weakened by early maternity, it is remarked that the strongest children are born to parents of middle age, i.e., from thirty-five to forty; this, the prime of life to the parent, is the happiest moment for the advent of her progeny.

As for the disadvantages of marriage before maturity they are many and striking.

1.—In the first place it is in this country one of the chief causes of Sterility. It always strikes me as curious that amongst a people so extraordinarily anxious for progeny as the Hindoos by a peculiar perversity everything seems to be done that the ingenuity of man could devise to defeat their own wishes in this respect. Premature marriage, the subjection of women, the treatment of mother and child after childbirth, all act as a check upon population of a cruel and barbarous nature. However, it is hardly to be wondered at. Hitherto the world has been governed by brute force only, which means that the stronger animal—man—has kept the weaker in subjection, allowing her to live only in so far as she ministered to his comforts, that he has not unnaturally made laws and fixed customs to suit his own pleasure and convenience, always at the expense of the woman, and that is worse, that he has in all countries given a religious sanction to his vices in order to bend the woman to his wishes; and he has reaped the usual reward of selfishness, the gratification of immediate low desires has frustrated the future attainment of higher aspirations. With regard to this matter of sterility I may remark that barrenness is almost always looked upon, even by women themselves, as a reproach to a woman and as resulting from some physical defect on her part. Here is another instance of popular ignorance. Even in Europe and America it is computed that in one out of six cases of sterility the defect is on the side of the husband. Amongst Hindoos where child-marriage prevails, where males as well as females are married prematurely and the concentration of the attention from early childhood upon a function which should be relegated to its proper place at the completed maturity of the individual leads to much sexual irregularity and vice, the proportion is much greater. Out of the vast number of women whom I have treated as patients since I came to Bombay in dispensary and private practice a large proportion, I need not say, have consulted me on this point, and I have no hesitation in asserting that in more than one-half the cases the sterility is due from one cause or another to the husband. I include, of course, the results of premature marriage which must be placed to his account, the girl not being a consenting party.

There is another class of cases where sterility follows after the birth of one child, the imperfectly developed parts of the child-mother having been so injured in delivery (generally of a still-born infant) that the function of child-bearing is from that time forth suspended. Does not your own experience bear out the truth of the three following conclusions?

1st. That marriage under thirteen or fourteen leads generally to the permanent ill-health [if no fatal injury] of the girl and to sterility.

2nd. That where childbirth takes place at that early age no fresh effort is put forth and no subsequent children are born.

3rd. That even if marriage is delayed till fourteen, where conception takes place immediately sterility follows after; but where the girl is strong and healthy there is a lapse of three or four years before child-bearing begins—a proof that puberty had not been reached until then. Of course, there are exceptional cases, but does not the consensus of experience point to these as general truths?

(To be Continued.)

AN IMPORTANT JUDGMENT.

IN THE SESSIONS COURT OF TRICHINOPOLY.

H. H. O'FARRELL, Esquire, *Jr. Session's Judge.*

From what Court the appeal is preferred—Deputy Magistrate, Trichinopoly.

Number of the case in that Court—97 of 1889.

Number of the Appeal—17 of 1890.

Name and description of the appellant—Krishnasami Aiyar.

The sentence and Law under which it was imposed in the Lower Court } 3 months S.I. Sec. 417, I.P.C.

Whether confirmed, modified or reversed—Reversed.

N.B.—The appeal was filed during the recess and the accused was admitted to bail pending the disposal of the appeal.

The appellant is the manager of the Middle School at Lalgudy and has been convicted by the Deputy Magistrate of Trichinopoly of cheating.

2. The charge framed by the Deputy Magistrate does not follow the phraseology of the Penal Code, and in consequence of this and also of the large amount of irrelevant evidence put in by the prosecution, it is a matter of some difficulty to ascertain what is the precise charge made against the appellant in the Lower Court.

3. I gather however that it is this. Under Government Notification dated 11th January 1887, it is incumbent on the Director of Public Instruction to "recognise" schools which fulfil certain conditions laid down (one of which is the levying of fees at certain minimum rates) and accordingly the school of which the appellant is manager was "recognised" in June 1888. One of the privileges of pupils of such schools is to be admitted by the Commissioner of U. C. S. examinations at certain favourable rates, viz., Rs. 3 as 8 instead of Rs. 10.

4. In August 1888, 9 pupils of this school went up and were admitted for examination at the favourable rates.

5. It is suggested that the accused was aware of and a party to those pupils going up for the examination in question. It is moreover alleged that prior to their going up, the accused had levied fees less than the minimum, that he had kept the Director of Public Instruction (who is also the U. C. S. Commissioner) in ignorance of the fact, and that the pupils were thus let in at favourable rates and there was a loss of Rs. 58-8-0 to the Educational Department.

5. I have not gone into the evidence because I hold that the facts proved clearly do not amount to an offence.

6. To constitute cheating, there must be an act or illegal omission, which act is the cause of pecuniary loss to the person cheated or causes him to act or neglect to act in a certain manner that he would not otherwise have done.

7. In the present case, there is no such act of the accused. It is not shown that he was under any legal obligation to report his own neglect to carry out the rules of the Department to the Director of Public Instruction and much less to the Commissioner of

U. C. S. Examinations. The proximate cause of the loss to the Department was the sending up of the 9 applications A 1-A 9 in August, 1888. These applications are not required to be signed by the appellant and there is nothing to show that he need be in any way aware of them. They are signed by the candidates and the Headmaster of the school and forwarded by the latter without reference to the manager through the post.

8. Even supposing, as is suggested, that the accused was aware of these applications and was held responsible for their correctness (repugnant as it is to common sense that a man should be held responsible for the contents of a document he is not required to see and may not have seen) it is clear that it was not his act in sending up these applications that caused the U. C. S. Commissioner to admit the pupils for examination. For it is not shown how the U. C. S. Commissioner could be aware that the appellant had anything to do with applications. All that he knew was that certain documents had come to him through the post, signed by the candidate and the Headmaster. It might be that it was the rule that such documents should be scrutinized by the manager; but how was he to tell that the rule had been observed in the particular case. If any such monstrous doctrine of constructive responsibility were to prevail, a manager would be at the mercy of any Headmaster who had a spite against him.

9. It seems to me, therefore, perfectly evident that the pupils were admitted on the strength of a certificate furnished by themselves and the Headmaster and not in consequence of any act of the appellant.

10. Nor, do I find in the applications themselves anything which can be tortured into a false statement. All that the Headmaster is required to certify is that the candidate has been a pupil of such and such a school for such and such a period. There is no declaration that the school is even a "recognised" school, much less that rules of the Educational Department have been complied with.

11. The suggestion seems to be that if the Director of Public Instruction had been informed that the fees were not being properly levied, he would have removed the school from the list of "recognised" schools and then the same Director in his capacity of U. C. S. Commissioner would not have admitted the pupils to examination at the privileged fees.

12. The Director has not been examined as a witness and I can only gather what he would have done in the circumstances stated from the records filed for the prosecution. From these it would appear that the Director "recognised" the school (vide his order on Ex. D.) while he was aware that it only "fairly fulfilled" the conditions laid down by Government and in (particular vide para. 4 of Ex. D.) that the fee notification had not been strictly carried out. The Director distinctly recognised the school for "the current year" adding that the continuance of the privilege after the close of that period would depend on the complete remedying of the defects pointed out.

13. From this I distinctly gather that the appellant had a year of grace and the only penalty he was to be liable to if he did not profit by the warning was the non-continuance of the privilege at the end of the year. He is not required to make any reports to the Educational Department as to whether or not the rules are being carried out. He is therefore unable to see that in failing to report he was guilty of any illegal omission or breach of duty, and if he were I cannot hold in the face of the dispensing powers exercised by the Director (as shown in the last para.) that the result of such report if made would have been to cause the Director summarily to remove the school from the "recognised" list. It seems much more likely that he would have simply warned the appellant that the defects must be remedied before the end of the year of grace.

14. For these reasons I am of opinion that the charge of cheating, as set out in the charge framed and the judgment of the Deputy Magistrate is unsustainable. I reverse the finding and sentence and direct that the accused be set at liberty.

(Signed) H. H. O'FARRELL,

Ag. District Judge.

THE VOCATION OF HIGHER TEACHERS.

We accept it as self-evident that the future physician should learn to know all the substances which Nature offers for the support and healing of the human body; but we only consult him about our health, and summon him to the sick-bed, when he possesses accurate knowledge of the structure and functions of the bodily organs and of the things beneficial or harmful to them. Similarly, we consider it important that the architect should truly understand the properties and structure of stone, wood, and iron; but with this knowledge alone we should not allow him to build a house. In matters of education we proceed otherwise. The future higher school teachers learn correctly at the University some portion of that knowledge which forms the matter of higher school instruction, and we might vainly hope that in this relation they may have a broad survey over school knowledge in its entirety, so that in the exercise of their vocation they may make the parts serviceable to the whole, instead of aspiring in their circumscribed special field to a dominion oppressive to the whole. On the contrary, they learn practically nothing of the structure and functions of the human mind to which they are to administer nourishment and develop power. No one instructs them in what is beneficial or harmful to it, what calls forth its energy and what oppresses it; they are trained for Latin or Greek, or some technical science, but not for the mental and moral culture of younger people. Their preparatory training only makes them acquainted with the material which, in accordance with the present condition of schools, it is customary to impart, and how they are to manage this material is left to chance, or, at all events, to an "experience" which generally comes too late. The University provides our higher schools with able specialists, but it does not provide what they want far more—educators.

Higher school teachers have cause to reproach those who have led them on the road to professional cultivation for having given them a completely erroneous view of the claims of their future calling. The young teacher has studied some one branch of science for years, he has widened that knowledge with the greatest zeal, to an extent which permits him to survey a large tract of human culture; he feels a proud satisfaction in the ease where-with he deals with the products of centuries of intellectual labour. Then he comes before his class. Eager faces greet him; eyes beaming with the desire of knowledge; mouths, otherwise so seldom quiet, silent now out of respect to the man who must know how to tell so much. This is the first impression which a class of boys of nine or ten years old makes upon the young teacher; it is a pity it is still everywhere customary to make the first educational experiments on children of this age. The teacher has to introduce his class to the elements of the Latin tongue. Certain unpleasant recollections of his own boyhood, which suffered considerably under the barren formalism of some old pedant, warn him not to begin at once with declination and conjugation. So he tells them of the ancient Romans, of their brave and law-abiding

character, their warlike expeditions and internal struggles, their virtuous republic, and their mighty empire. He arrives at the language by natural steps, and therewith to his special task. In the following lesson he wishes to hear from the scholars what he told them before. Here and there a boy ventures an attempt to fasten his faint recollection on the first Latin lesson, and to put into words what has impressed itself on his childish imagination. In the case of others every recollection has vanished, or they can find no words in which to reproduce the faded picture. This first disillusion may be got over, but beyond it there is the Latin which the first lesson was to teach, and it has not been learned. The young teacher sees that he ought not to make such advances to his scholars. Henceforward the matter of instruction is carefully and accurately proportioned, and strictly exacted hour by hour. The work now proceeds in regular course, and the director's first visit confirms the fact that the aim of the instruction is attained. The teacher does not notice that the lively eagerness which greeted him in the first lesson is quite extinguished, but his heart grows heavier in the thought that his profession has proved entirely other than he, when at the University, thought it would be. His fellow-students in the faculty of medicine have watched by cases of wearisome illness, have attended difficult operations, have sacrificed their night's rest to the sick poor; they knew the future claims, which their profession would make on them. He meanwhile was wandering on the topmost heights of knowledge, and his critical penetration had never been paralysed by childish inability to enter into scientific questions proper; perhaps he would not have chosen the profession which now holds him fast if he had had during his studentship any idea of what would be asked of him in the future. And nevertheless he might perhaps still have chosen it if it had been represented to him, not as the task of forcing Latin or mathematics into unwilling heads, but as the sacred office of securing to the younger generation the civilization of the future. For the truly scientific heads are those best suited to the work of education, since there is a natural tendency in science to cultivate and impart itself. It is one-sided special knowledge, alone, which, however, is rarer in our age of scientific division of labour than it appears, that does not understand this problem, and it is just to this specialist learning that we entrust the preparation of the higher school teachers.

We have to thank the natural relation between genuine science and educational activity, that the educational spirit is not entirely extinguished in our higher schools. The daily cares and perplexities of instruction, from which a uniform result is expected, have led to a whole system of traditional deeprooted school methods, which we cannot consider pedagogic in the smallest degree. So long as the leading question of the higher schools is, How can the greatest amount of Latin, history, and mathematics be injected? and not, How can intellectual power be developed and moral character formed? so long we can never expect a true educational understanding of higher instruction. Therefore the young teachers continue to teach to generation after generation, in our schools, which ought to pursue quite other

aims, these special technical parts of knowledge with which the University has so richly endowed them. In former years the pupils of the gymnasium were divided accordingly to their strength in mathematics or classics. Thus many able young men have reached the University who would never have succeeded in detecting the corresponding parts of two proportional figures, and many have attained to high offices in the State, who could never have clearly seen the law of the sequence of tenses in the construction of the Latin sentence. That the gymnasium of to-day has almost universally dropped this division, we consider a decided, though unpardonably, late improvement; for education has, for a long time past, expressed itself most emphatically on this point; but the present condition of these matters shows most clearly that the improvement does not indicate any increase of pedagogic influence in our schools, but only the doubtful interference of specialized culture. Formerly the classical philologists determined the plan of instruction in the gymnasium; now the mathematicians determine it on their side. Formerly a mathematical head was not necessary, but philological weakness might be sometimes covered by good mathematical training; now the plans of instruction are cut and dried, as if every scholar's head was both mathematical and philological. A circumspect pedagogy, founded on psychology and experience, discovers the most varied degrees of passive endowment (*Anlage*) in the pupil, which partly fall under that rough division into mathematical and philological heads; but if it surveys the vast field of knowledge, infinitely enlarged for centuries past, which one generation passes on to the next, and places it in relation flow to the natural powers and needs of the human mind, it finds the culture which does not extend equally on both sides is, and remains, distorted, and is not fitted to be a beneficial contribution to general culture.

We have not honoured other branches of science so much as to require a special kind of head for them. In history, for example, a certain aptitude for the comprehension of moral relations might have been demanded—at least it is taught in the schools that history must be studied diligently, because it is a mirror and a teacher of morals. As a fact, it is studied as an exercise for the memory. It is built up like a great scaffolding, wherein, later on, all possible knowledge may be stored; but when the experiences of life come, with which the historical facts learned at school might be placed in connexion, only a dead remnant of what was learned with so much trouble remains, from which nothing living can again grow. If history in the school had only been connected with the extensive historical material which language instruction presents to the scholars in a more living form, both the language and history matter would have made greater impression, and might have aroused and cultivated the capacity of the pupil to form a judgment on questions relating to human life, and in accordance with such judgment to come to a moral determination. This is, however, not to be expected, as long as history is only taught in the schools because there is an historical branch of science.

The retort will be made, that at least in the field of language instruction so much improvement has taken place in our day that the pedagogic judgment

can find little ground of further complaint. It is a fact that grammatical instruction is curtailed at present in a desirable manner—if not in practice; at least in theory; the lecture takes notice of the essential contents and æsthetic forms of classic writings much more than formerly. This is highly praiseworthy, but, with all this, there is no question that, if we wished to satisfy all the claims which the literature of the day makes on this side of the gymnasium, the entire school time would not be sufficient. For, just in the numberless writings wherein our schoolmen develop their ideas respecting an improved condition of our higher schools, it is not the educator who speaks in the interest of the general culture of human beings and citizens, but the professor of a technical branch in the interest of his speciality. No further proof is needed to show how untenable matters have become in our higher schools, because we do not give them as teachers educators trained for the vocation of pedagogy, but professors in technical subjects. What disappointment we thereby prepare for many young men who determine to be teachers that they may live for science, is easily seen; and yet in no profession is pleasure in the vocation more indispensable than in that of teaching, for none so entirely demands the putting into it of the whole personality and in none is the result of the work so dependent on the tone of mind of the worker. If, then, the higher school teachers would be specialists and not educators, their plans of teaching and their instruction can never do what is necessary for general culture, for they do not even survey their field. Only one thing can be expected from such teachers—a zealous anxiety for the success of their own speciality within the school organization in which they work, and this brings us to the worst consequences of our perverted system.

No reasonable teacher would expect from boys such as fill the lower classes of our higher schools any marked interest in a technical branch of knowledge; where *distraste* is shown towards certain kinds of mental work, the teacher must consider if what is exacted is not disproportioned to the average power of the age in question, or whether an individual weakness of the scholar is not present, which, in the interest of his general culture, must be combated betimes. If the teacher looks at his task only from the standpoint of technical interest, the basis of common understanding between teacher and pupil is wanting from the beginning. This incongruity is the source of numberless defects in our higher schools, and the occasion of many just complaints. It is inevitable that the difference between the exact and extensive knowledge of the teacher and the limited acquirements of the pupil should oppress both sides; the teacher lets the pupil feel his superiority in a way which depresses the assiduous more than the easy-going scholar, who consoles himself with the thought that he will willingly dispense with his knowledge in his future practical life. The scholar's continually unsuccessful attempts to come up, in some degree, to the teacher's learning, finally discourages the teacher also, even if he does not adopt means which, in the present day, take the place of the prohibited stick, but are worse than it was—such as mortifying words over the scholar's incapacity, his faulty ambition, &c.; harsh reports, which first only show him that he cannot do

right in his teacher's eyes; disputes with the parents, who do not on their side support the work of the school; general complaints over the unsatisfactory condition of the scholars' knowledge when they were handed over to their present teacher; punishment work which makes moral poison out of beneficial mental food; entire neglect of those scholars who do not keep well up to the mark, and whose honest attempts still to satisfy the teacher in one thing or the other are disregarded till the school year is lost to the scholar.

With means like these, and others having a more wholesale effect, the outward management of a school can probably be carried on. But confidence regarding the condition of our schools is nevertheless destroyed just in those circles called to support the preparations for public culture through their voices. The reform of our higher schools, desired most urgently on all sides, advances not one step further, because teachers in school circles, from whom counsel must first proceed, dispute about matters whose only importance is from the standpoint of some technical knowledge or other, and turn away from the threshold the general question of culture and its pedagogic examination.—DR. E. VON SALLWURK in the *Journal of Education*, (London).

SWEDISH GYMNASTICS.

The strongest evidence in favour of the Swedish system of gymnastics is its internal evidence—that which its purpose, its principles, its methods, and its art reveal. It is difficult to describe the system briefly. All that can be here done is to note some of its salient points:—

1. Beginning with the recognition of "the oneness of the human organism" and of nature's intention to keep "harmony between mind and body and between their parts," it aims at health; at such a development of the body as that each part will have its proper strength, and will be able to perform its function with vigour and satisfaction, and at such harmony and symmetry as that all the parts together will form a well-proportioned and beautiful whole under the perfect control of the will. Although, in this high aim, muscular development is not overlooked or slighted, yet it is regarded as only one part of the purpose of physical training. The health and strength not only of the muscular, but also of the respiratory, circulatory, and nervous systems are included in the aim of the Swedish system of gymnastics.

2. The Swedish system of gymnastics is founded upon the facts, laws, and needs of the human organism and upon the laws of motion, especially the movements of the human body. Physiology and, in less degree, physics, chemistry, and æsthetics, contribute their respective shares of materials upon which rest the principles and methods of the Ling system. Its greatest merit is that it is a *system*, simple, thorough,

direct and safe. A well-defined and well-executed Swedish movement differs as much from the ordinary sledge-hammer performances in an old-fashioned gymnasium as a Damascus blade differed from a Saxon bludgeon.

3. The Swedish movements are classified with reference to their effects on nervous action, respiration, circulation, digestion, and secretions. The following is Ling's classification:—

1. "Order" movements. 2. Movements for back and chest. 3. "Heave" movements (various forms of lifting the body by means of the arms). 4. Balance movements. 5. Shoulder-blade movements. 6. Movements for the abdomen. 7. Alternate trunk-movements. 8. Slow leg-movements. 9. Jumping and vaulting. 10. Respiratory movements.

Each of these classes of movements contains a variety of exercises suited to the age, physical condition, progress, and skill of the pupils. Usually, one exercise at a lesson is taken from each of the ten classes and in the order of these classes. Sweden has proved that the average teacher, after suitable study, drill, and direction, can conduct these exercises with safety to the pupils and with good physical and mental results. Moreover, the variety of exercises, and gradual increase of effort and skill required for their exact performance, the general refreshment that they give, and their ability to remove weariness and the ill-effects of too great or too long exertion—all these go to show that the Swedish gymnastics not only train but also interest the pupils.

4. The Swedish system of gymnastics is eminently economical. Unlike the ordinary "systems," it husband, while it directs and develops, strength. It should be kept in mind that many pupils in our public schools are underfed, and cannot afford to waste their supply of physical energy by misdirected or excessive physical effort. It is also true that many of the Swedish movements can be executed in the class-room, and without apparatus. Although "the hall" might be profitably used by some of the classes, and some comparatively inexpensive apparatus might be provided for it, and used with good results, yet the important ends may be reached without the use of either hall or apparatus. The Swedish system is not only comparatively inexpensive, but also moderate in its demands upon the school-hours. Somewhat more time than is now allowed for "physical exercises" should, however, be given to the physical training, else the results, though good, will be imperfect. If the long recitation or study periods were oftener interrupted by suitable physical exercises, the resulting refreshment and energy would enable the pupils to give better attention to their studies, and to accomplish more in a given time * *

* * * * In whatever light we examine the Swedish method of physical education, we see only good. Some may infer that the adoption of this method will result, on the one hand, in discouraging the natural, spontaneous plays of childhood, and, on the other hand, in discountenancing or dispensing with military drill in the schools. Neither of these inferences is just. The principle that spontaneous play is suitable in the nursery, and regulated play—work-play—in the Kindergarten and for the lowest class in the Primary School, is well established. Gradually in the process of Education, the spontaneous must give way to the voluntary in physical as well as in mental exercise. Thus, during the last two years in the Primary School, some mental work and some physical training should be required; and, during the six years in the Grammar School, mental and physical training should go on together, with gradually increasing vigour and exactness. In the High and Latin Schools, physical education should be made an essential part of education, and its means and methods should be better regulated.—*Private Schoolmaster.*

MADRAS PHYSICAL TRAINING AND FIELD GAMES' ASSOCIATION.

THE Annual Meeting of the above Association was held on Tuesday, 16th December, at 5-30 P.M., in the Old College, Nungumbaukum, Mr. H. B. Grigg, C.I.E., the Vice-President of the Association, being in the Chair:—Present, Mr. J. Adam, Mr. A. A. Hall, Rev. G. Pittendrigh, Col. T. O. Underwood, Mr. C. A. Patterson, Mr. G. H. Stuart, Mr. V. Krishnama Chariar, and Mr. P. Vijiaranga Mudaliar.

The first business before the meeting was the adoption of the Report for the year 1889-90, from which we take the following extracts:—

"In submitting the report for the past year the Committee has pleasure in stating that the work of the Association has been carried on very successfully throughout the year. *Gymnasium.*—The strength of the gymnastic class on the 1st April, 1889, was 26 (normal students 19 and private students 7). The number admitted during the year was 46 (normal 32 and private 14). The strength of the class on the 31st March, 1890, was 39 (normal 30 and private 9). Four certificate examinations were held during the year, at which 18 received first-class certificates, and 16 second-class certificates. The following are the names of those who received first-class certificates:—A. Subba Rao, A. V. School, Pattabiradai; M. Lakshminarain, L. F. Middle School, Udipi; J. Jasudisen, Am. Mission School, Melur; V. Sessa Aiyer, Chatram School, Oranad; Abdul Khadir, Luth. Miss School, Guntoor; L. Subramania Aiyar, Mupl. H. School, Mayaveram; J. Sawmy Dasen, Ch. Miss. College, Tinnevely; I. Virabramananda Rao, Pittapur Raj's Col., Coconada; A. R. Narayanasawmi, Private; Syed Abdul Smatt, Private; Y. Venkatachellapathy Private; Mammaseen Kutti, Mappalay Nor. School, Calicut; K. Lakshimikantham, Bd. Nor. School, Masulipatan; E. Narasimham, Normal School, Rajamundry; C. K. Subramania Aiyar, High School, Ernakulam; S. Chellum Aiyar, Hin. High School, Madura; Samuel Vedakan, Normal School, Palamecottah; and Jos. Servai, Normal School, Porayur.

Local Examination.—During the year three examinations were held at Rajamundry by Mr. Metcalfe, at which three candidates gained second-class certificates.

Annual Competitions.—There were a large number of entries for the Gymnastic and Athletic Competitions, and the events all through were well contested. The entries for the Tennis and the Cricket Competitions were not so numerous as last year; the first eleven of the Christian College and the Presidency College did not compete for the Cricket Trophy, neither was the latter College represented in Tennis. Very little public interest was taken in the various matches; only one or two Europeans visited the gymnasium while the sports were going on, and had it not been for the kindness of Mr. Adam and a few other gentlemen, the Tennis matches must have fallen through. There can be no doubt that public interest in the Association is falling off greatly, especially with the European population. The difficulty is becoming greater every year to provide funds for the prizes, and many old supporters of the Association have withdrawn their annual subscriptions.

* 2. Gymnastic and Athletic Competitions were held at the People's Park Gymnasium on the 8th and 9th January, 1890. The "Governor's Cup" was won by P. Bazeley of the Bishop Corrie's Grammar School; the "President's Cup" was won by C. Muniswami of the Madras Christian College; the "Vice-President's Cup" was won by E. Narasimham, a pupil of the People's Park Gymnasium; the "Sir Ramaswami Mudali's Cup" was won by T. Muniswami Mudali of the Commercial High School, Patcheappa's College, Madras.

The Tennis Competitions were held on the courts of the Cosmopolitan Club for three days, beginning on Monday the 13th January, 1890. The thanks of the Association are due to the members of the Club for kindly lending the ground, and superintending the matches played there. The "Travancore Lawn Tennis Trophy" was won by the Central College, Bangalore, and "Sir Ramaswami-Raungenadham Lawn Tennis Trophy" by the Patcheappa's College, Madras. There were entries for the Tennis Competitions from the following Colleges and Schools:—Patcheappa's College, Madras; Wesleyan Mission School, Madras; Central College, Bangalore; Wesleyan Mission School, Bangalore; Maharajah's College, Madras; Medical College, Madras; Agricultural College, Saidapet; Christian College, Madras; Maharajah's College, Trivandrum; and the N. H. School, Mailapur.

The Cricket Competitions were held on the Chopauk ground and on the Island. The thanks of the Association are due to the members of the Madras Cricket Club for having kindly lent the ground.

The following Colleges and Schools were represented in the matches:—Doveton College, Madras; Patcheappa's College; Madras Commercial High School, Patcheappa's College; Madras Christian College, Madras; Medical College, Madras; Central College, Bangalore; Bishop Cotton's College, Bangalore; W. M. High School, Bangalore; and A. M. High School, Madras.

The "Brandt-Hutchins' Cricket Trophy" was won by the Patcheappa's College, Madras, and "The Sri-Godavary Cricket Trophy," by the Commercial High School, Patcheappa's College.

Funds.—In the last report we stated that the gradual falling off of subscriptions had for the time stopped. We regret that so far from being able to repeat this satisfactory information we have to report a still larger diminution than before. Last year the amount collected from Madras subscribers was Rs. 540. The present year gives only Rs. 420. The amount received from non-Madras subscribers was Rs. 60, exactly the same as for the previous year. The fall in subscriptions means a corresponding loss in Government Grant. The balance in favour of the Association is thus rapidly disappearing, and unless more subscriptions are received at an early date it will soon be turned into a deficit. It will be observed that there is a balance of Rs. 507-11, this year, as against Rs. 500-1-10 last year. But this is due to the fact that a sum of over Rs. 200 spent in connection with the annual sports, is included in next year's accounts. The real balance is less than Rs. 300

General.—Mr. Adam, who has done valuable work to the Association, resigned his Joint Honorary Secretaryship in August last, and Mr. A. A. Hall was unanimously appointed in his stead. We also note the resignation of Capt. R. H. Campbell Tufnell, whose place was filled by Mr. Adam in the Executive Committee, and by Mr. Middlemast in the General Committee. Mr. D. Sinclair resigned his place, as a member of committee, on his departure to Scotland.

Mr. GRIGG requested some one to move the adoption of the Report. He thought that the progress of the Society had been satisfactory, except in the direction of funds. It was gratifying to see that gymnastics were very popular, and he noticed, while in Travancore, that gymnastics seemed to thrive from a pure liking for them by the students.

COL. UNDERWOOD then moved the adoption of the report.

Mr. PATTERSON seconded the adoption and said:—I have much pleasure in seconding the adoption of the Report, but in so doing I wish to make a suggestion. Would it not be advisable to bring in a rule by which such schools only as subscribe Rs. 10 annually to the Association should have certain privileges, such as the sending boys to various games, to gymnastic competitions, and having preference in receiving trained teachers from the Association?

The proposition on being put to the vote, was carried.

Mr. PITTEDRIGH proposed, and Mr. Adam seconded, "That Mr. Garstin be elected President."—Carried.

It was proposed by Mr. Vijiaranga Mudaliar, seconded by Mr. A. A. Hall, and carried "That the Hon'ble Mr. Mir Humayun Jah Bahadur and Mr. H. B. Grigg, C.I.E., be elected the Vice-Presidents."

It was proposed by Mr. Pittendrigh, seconded by Mr. V. Krishnama Chariar, and carried, "That the present members of the General Committee be re-elected, with name of Mr. B. Iderback substituted for that of Mr. G. Kuppasawmy Naidu."

Mr. GRIGG then said:—We can hardly do better than to re-elect Mr. Pittendrigh and Mr. Hall as Honorary Secretaries, and Mr. Vijiaranga Mudaliar as the Treasurer. I am sure we are all indebted to them for the trouble they have taken during the past year; and if they will kindly place us under further obligation, we shall be glad to elect them again this year.

These gentlemen having signified their consent, Mr. Grigg proposed, and Mr. Adam seconded, "that Mr. Pittendrigh and Mr. Hall be re-elected the Honorary Secretaries, and Mr. Vijiaranga Mudaliar, the Honorary Treasurer."—Carried.

Mr. PITTEDRIGH said that at the last meeting of the Committee the following proposition had been proposed by Mr. Grigg, seconded by Mr. Vijiaranga Mudaliar, and finally adopted:—"Resolved to recommend to the general Committee that Government be asked to undertake the training of stipendiary students, to make provision for the admission of private students recommended by the Association, to arrange for periodical examination of the students for certificates as Instructors, and to purchase the apparatus now in the gymnasium."

Mr. HALL in proposing that "the recommendation of the Committee be adopted," said that the idea with which Mr. Grigg had proposed the resolution at the last meeting was that those students who received a stipend from Government for being trained, and also other private students who might desire to go through the course of instruction in gymnastics, instead of being located at the People's Park, should go to Saidapet, and that would necessitate the removal of the gymnastic apparatus from the People's Park to Saidapet. It was proposed that the Government should be asked to buy the apparatus, so that it might be fixed at Saidapet, and become the property of Government. At present the Honorary Secretaries (Mr. Pittendrigh and himself) could not very often be at the Park, and the charge of the pupils was largely in the hands of the Superintendent and the Instructor. Mr. Grigg seemed to think that that difficulty would be entirely obviated by

he proposed transfer to Saidapet, because the pupils would there be under the supervision of the various masters of the Teachers' College, and the training they would receive would be very much more satisfactory. At the present moment the instruction received by them was only in the mornings and evenings; and no one knew what they were doing the whole day. Mr. Grigg's notion in proposing that resolution was that they would have more opportunities at the Teachers' College for exercising what they have been taught; and also that they might be employed in other ways during the day, so that they might learn something besides gymnastics in the ordinary work of the school. Mr. Hall remarked that there had been occasional complaints as to the drill.

Mr. GRIGG said that if the pupils were at Saidapet, under the supervision of the authorities of the Teachers' College, he proposed to arrange for attending to their general education and affording them facilities for improving in other ways, possibly they might be made to go into the carpenters' workshop. He thought that their time could be profitably employed in that way. The Government was contributing something like Rs. 300 a month in training the students, and he thought that the time had come when the Government might demand from them a greater amount of time. He very much wished that the Colleges would pay some attention to the educational status of the gymnastic instructors; and if that was done he was sure that the institution would be more beneficial to the students of this Presidency.

Mr. ADAM in seconding the proposition of Mr. Hall said that they had passed the pioneer stage, so to speak. They were practically doing the work of the Government, and in doing that work a great part of the funds was taken away. All the Schools had gymnastic apparatus for themselves, and, practically, no school pupil would go to the Park for training. He therefore did not think there was any necessity for them to keep the gymnasium any longer in the People's Park. He thought that it was time to raise the status of the gymnastic instructors. The advantages mentioned by Mr. Hall in having practising classes and in locating the gymnastic apparatus at Saidapet were very great.

Mr. PITTENDRIGH:—I have much pleasure in supporting this proposition but not altogether on the grounds mentioned by Mr. Hall. There are certain things that may be somewhat unsatisfactory, but I do not think the Association has worked in an unsatisfactory way.

Mr. HALL:—I do not mean to imply that at all.

Mr. PITTENDRIGH:—My chief reason for supporting the resolution is that there is a growing deficiency of funds, and that this particular portion of the work can fitly and naturally be done now by Government. It is worth nothing that at an examination held last week, by Mr. Middle Smith, Mr. Middlemast, and myself, Mr. Smith remarked on the wonderful improvement that had taken place in the drill during the past few years. During the last three months a new infantry drill and physical exercise have been introduced, and we were all particularly struck at the way in which the lads went through these exercises as regards neatness and efficiency. The improvement in drill particularly during recent years has been very marked.

Mr. GRIGG observed that some time ago Lord Reay had wanted to get information as to what this Association was doing, and although there was no Association in Bombay similar to this, yet the action taken by Government was really the outcome of the work they had done in this Presidency. He thought that their influence had extended even further North—into the Central Provinces, for example. They had the credit of starting the movement.

Mr. HALL's proposition was then put to the vote, and carried.

Mr. PITTENDRIGH said that the next business was the presenting a memorandum as regards the probable cost of the apparatus. He had a statement drawn up by the contractor of the Association, and the value of the apparatus, according to that estimate, was Rs. 1,007-8-0.

It was proposed by Mr. C. A. Patterson, seconded by Mr. Vijiaranga Mudaliar, and carried, "That the General Committee be empowered to carry into effect the resolution proposed by Mr. Hall."

Mr. GRIGG:—Before we close I wish to propose a hearty vote of thanks to the office-bearers, Mr. Hall, Mr. Pittendrigh, and Mr. Vijiaranga Mudaliar, for the very efficient way in which they have performed the duties of their offices. I think they are entitled to our best thanks for the work they have done, and the help they have given us.

Mr. ADAM:—I am very happy to second the proposition because I know what the work is.

The proposition was carried unanimously and the meeting then terminated.

THE MADRAS PHYSICAL TRAINING AND FIELD GAMES' ASSOCIATION.

The Annual Competitions of the Association will be held in Madras on the 8th January 1891, and the following days.

The exact days and hours will be notified in December after the entries have been received.

Attention is particularly directed to the Rules and Regulations, which differ in many respects from those of previous years.

No entries can under any circumstances be accepted after the 15th December 1890.

The ties will be drawn, and notified to the various clubs, in December. The drawing will be so arranged that all ties will occur in the first round of ties. For example, if there are six entries, two clubs will draw byes in the first round, so that there may be four clubs to compete in the second round, and two in the third.

GENERAL RULES.

I. The competitions are open to pupils of all High Schools and Colleges in the Presidency, including those of Travancore, Mysore, Hyderabad, and other Native States.

II. All competitors, in competitions not specially exempted, must have been *bona fide* students for two terms immediately preceding the competition, and no one will be held to be a *bona fide* student who has not attended the same School or College on at least two-thirds of the working days during each term. Paid instructors, including stipendiary pupils of the Gymnasium, shall be excluded from all ordinary contests. Students who have qualified for their degree in spring are eligible for the competitions in the following cold weather, even if their names have not been borne on the rolls of any institution during the interval.

III. No student, otherwise eligible under Rule II, shall be permitted to compete after the expiry of 12 months from the date on which he has been declared qualified for his first degree, or after the lapse of 6 years from his Matriculation, whichever of the two shall first happen.

IV. In competitions reserved for schools, no Matriculate shall be eligible except for the competitions next after the examination at which he passed.

V. All entries must be made through the Head of the Institution in which the competitor has studied, who shall certify that the conditions of attendance have been complied with. All entries must reach the Honorary Secretary, Mr. A. A. HALL, THE LUZ, MADRAS, not later than the 15th December 1890.

VI. Each challenge trophy shall be held for the following year by the winning Institution, whose name shall be inscribed on it. Any trophy that is won for three consecutive years by the same Institution shall become the property of that Institution. No candidate shall be eligible for a Champion Cup who has won it twice in succession or three times in all.

VII. There shall be no handicaps in trophy and champion competitions.

VIII. The name of any competitor acting in a disorderly manner shall be forthwith erased from the list by the Judges.

IX. Competitors shall wear trousers in all the Trophy Matches.

X. An entrance fee of eight annas must be paid by each competitor for the Cricket and Tennis competitions.

CRICKET.

THE HUTCHINS-BRANDT AND SRI-GODEVARI CRICKET TROPHIES.

1. There shall be two competitions, a Junior and a Senior.
2. The Junior shall be limited to schools and school departments.
3. No school pupil will be permitted to play for both trophies in the same season.
4. Professional umpires will be engaged and the matches will be conducted strictly under M. C. C. Rules.
5. The Association may give suitable prizes to the members of the winning team, and to any players who, though not in the winning team, may particularly distinguish themselves in the matches.
6. The Hutchins-Brandt trophy shall be awarded to the winning team in the competition of Seniors, and the Sri-Gjdevári trophy to that in the competition of Juniors.

LAWN TENNIS.

THE TRAVANCORE AND SIR RAMASAWMI-RANGANADHUM LAWN TENNIS TROPHIES.

- 1, 2 and 3. As for the cricket trophies.
4. These trophies shall be given for doubles.
5. The Travancore trophy shall be awarded to the winning pair in the competition of Seniors, and the Sir Ramasawmi-Ranganadum trophy to that in the competition of Juniors.
6. No Institution shall enter more than one pair of players.
7. The Association will give suitable Prizes to the winners.
8. The Association will also give prizes for singles. There will be two competitions, Junior and a Senior. No more than two competitors for each competition will be allowed to enter from any Institution.
9. Independent Judges will be appointed, and the matches will be conducted strictly in accordance with the match rules of the A. E. L. T. C.
10. Only one competitor will be allowed to represent each College in the Single Tennis Matches.

GYMNASTICS AND ATHLETICS.

GYMNASTICS.

Horizontal Bar.
Parallel Bar.
Trapeze and Rings.
Horse.

ATHLETICS.

100 Yards' Race.
300 Yards' Race.
High Jump.
Long Jump.
Pole Jump.
Putting the Shot.

1. For all events (except Putting the Shot) the competitors will be divided into two classes according to age, which must be certified by a competent authority. The certificate of the Headmaster of the competitor will under ordinary circumstances be accepted.

The limit of age for Juniors is sixteen years. Competitors under sixteen years of age may enter for the Senior prizes, but will not also be allowed to compete with the Juniors.

2. Prizes will be given to the first in each competition. Where the number of entries for the merit of the competitors justifies, additional prizes will be awarded.

3. The management of each competition shall rest with the Judges and Referee whose decision shall be final, and who may for misconduct or other cause, disqualify any

competitor. Previous Prize-winners may be handicapped by the Judges at their discretion, but no such handicap will be taken into account in awarding the Champion Cups.

4. The names of intending competitors must be forwarded as provided in General Rule V, along with an entrance fee of 2 annas for each competitor.

5. The following Champion prizes will be offered for competition:—

THE GOVERNOR'S CUP—Shall be given to the competitor (Junior or Senior) who obtains the highest total number of marks in running and jumping. The races to be 100 and 300 yards, and the jumps, to be high jump, long jump, and pole jump.

THE PRESIDENT'S CUP—Shall be given to the competitor (Junior or Senior) who obtains the highest number of marks in the following:—horizontal bar, parallel bar, trapeze and rings, and horse.

NATIVE GYMNASTICS.

THE SIR RAMASAWMI CUP—Shall be given to the candidate who makes the highest number of marks in the following native gymnastic exercises:—*Thandil*, *Baski*, *Kusti* (wrestling), *Karēla*, *Jōdi* (dumb-bells), *Bāna* (single stick) *Patta* (sword play). The Association will give additional prizes, if sufficient merit be shown. There will be no division into Juniors and Seniors in this competition. The entrance fee is 2 annas for each competitor.

PROFESSIONAL COMPETITION.

THE VICE-PRESIDENT'S CUP—Shall be given to the gymnastic instructor or normal gymnastic pupil who obtains the highest number of marks in the exercise prescribed for the certificate examinations; viz., horizontal bar, parallel bar, horse, trapeze and rings, ladder, short horizontal beam, vertical poles, rope, dumb-bells, and drill. The Association will give additional prizes, if sufficient merit be shown. No entrance fee will be required in this competition.

All enquiries should be addressed, and all entries must be made, to the Honorary Secretary.

MADRAS, 20th November 1890.

A. A. HALL, M.A.,
The Lux, Madras.

NEEDLE-WORK EXHIBITION.

The Madras Branch of the National Indian Association will hold an Eighth Annual Exhibition of Needle-work, &c., early in March 1891.

1. The following prizes will be offered:—

I. For the best collection of Native garments, cut out and made entirely by the exhibitor or exhibitors, two prizes, one a Sovereign and the other Rupees ten; the first to be awarded to a Native Lady, and the second to the pupils of a Native Girls' School.

II. For the best specimen of Native embroidery, four prizes, as in para. I.

III. For the best collection of English garments, two prizes, as in para. I.

IV. For the best specimen of English embroidery, in satin-stitch or open work, two prizes, as in para. I.

- V. For the best specimen of crewel-work, two prizes, as in para. I.
- VI. For the best Indian design for embroidery, two prizes, as in para. I.
- VII. For ornamental darning on net, two prizes, as in para. I.
- VIII. For the best specimen of mending by darning on old cloth or stocking, two prizes, as in para. I.
- IX. For the best specimen of mending by patching, two prizes, as in para. I.
- X. For the best specimen of pillow-lace, white or cream, two prizes, as in para. I.
- XI. For the best specimen of pillow-lace, gold or silver, two prizes, as in para. I.
- XII. For the best specimen of knitting, two prizes, as in para. I.
- XIII. For the best sampler, with English or Vernacular letters, two prizes, as in para. I.
- XIV. For the best Kindergarten work, two prizes of Rupees five each.
- XV. For the best kolam drawing, two prizes, as in para. XIII.
- XVI. For the best free-hand drawing, two prizes, as in para. XIII.
- XVII. For the best Map-drawing, two prizes, as in para. XIII.
- XVIII. For the best Native bead-work, two prizes, as in para. XIII.

2. The specimens should be sent to Miss Jupe, Maclean Street, Black Town, between 20th January and 10th February, 1891.

3. Each competitor for a prize should send with the specimens a declaration, attested by herself, or her parent or guardian, that the work has been executed entirely by herself. In the case of a school, the declaration should be to the effect that the work has been executed entirely by the pupils in the school, and should be signed by the Manager.

(a) The garments exhibited must not be in miniature, but of a useful size.

(b) In awarding prizes I. and III., the shape of the garments, the beauty and strength of the Needle-work, and the size and variety of the collection, will all be taken into consideration.

(c) In awarding prizes for embroidery and other fancy-work, the beauty of the workmanship, the taste displayed in colour and form, and the suitability of the ornamental work for the purpose to which it is applied, will all be taken into consideration.

(d) In awarding prizes for Kindergarten work, that which shows a knowledge of Froebel's principles and ideas will be valued more highly than that which displays only mechanical skill.

(e) No prizes will be given for kinds of work not mentioned in this notice.

(f) Work sent from schools should have the name and address of the schools securely fastened on each piece and on the boxes containing the work and on their keys, and should be accompanied by a list.

(g) Work sent by private individuals, as well as the boxes containing it and their keys, should have the name and address of the owner similarly secured.

4. Competitors for prizes will not be allowed to send the same specimen twice for exhibition. Those who have received prizes twice for the same kind of work are not eligible for a 3rd prize for that kind of work.

5. Those who desire to sell their contributions may do so, if they appoint an Agent of their own to conduct the sales, remit the proceeds and return any work that remains unsold. The price should be clearly marked on each article.

6. The Sub-Committee will be glad to receive specimens of fine Needle-work (both plain and fancy) for exhibition only. These also should be sent to the care of Miss Jupe.

7. All the specimens will be returned to such exhibitors as send a messenger for them to Miss Jupe within a fortnight after the close of the Exhibition. If this is not done, Miss Jupe cannot be responsible for the safe-keeping and return of specimens belonging to contributors in the town of Madras. Contributors in the Mofussil are requested to arrange, if possible, for the removal of their contributions by a messenger in Madras. When this is impossible, Miss Jupe will, if requested, return the specimens by train or post. The receipt should be acknowledged immediately.

8. Competitors who receive a certificate or prize are requested to send an acknowledgement immediately.

KRUPA SATTIANADHAN,
Honorary Secretary,
National Indian Association, Madras.

HIGHER EXAMINATIONS IN SCIENCE, ART, INDUSTRIES AND COMMERCE—MAY 1890.

The following candidate is declared to have passed in Advanced Agriculture and the allied subjects for the Agriculturist's diploma:—

Register No.	Name of Candidate.	Father's Name.	Where educated.
60	C. S. Ramalingam Vadhiar.	C. V. Sivarama Vadhiar.	College of Agriculture, Saidapet.

The following candidates are declared to have passed in Group A (Agriculture and the allied subjects) and are entitled to group certificates:—

Register No.	Name of Candidate.	Father's Name.	Where educated.
4	K. Sitaramachendrayya	K. Ramachendrayya	College of Agriculture, Saidapet.
7	M. Narasimhayya	M. Srinivasayya	Do.
15	S. V. Palaniyandi Pillai	P. G. Velayutham Pillai	Do.
16	M. R. Ramaswami Sivan	S. Rajam Aiyar	Do.
17	S. Shiva Rau	S. Ragbunathayya	Do.
26	K. Siddarama Gowda	K. Siddarama Gowda	Do.
27	G. Venkataramayya	G. Ramachendrudu	Do.
29	C. R. Swami Aiyangar	Ramanuja Aiyangar	Do.
31	P. K. Vaidyanada Sastri	P. Krishna Sastri	Do.
41	M. Sundaresa Sastri	Mahalinga Sastri	Do.
43	L. A. Krishna Aiyar	L. K. Aiyathurai Patter	Do.
48	C. V. Nilakanta Aiyar	C. A. Vaidyanada Aiyar	Do.
65	M. R. Kasturi Ranga Aiyangar	M. Ramaswami Aiyangar	Do.

(By order.)

Office of the Comr. for the U. C. S. Examinations,
Madras, 13th December 1890.

E. H. ELLIOT,
Secretary.

EDUCATIONAL NOTIFICATIONS.

GAZETTE NOTIFICATIONS.

Fort St. George November 21, 1890.

M.R.Ry. A. Ramalinga Aiyar, M.A., Third Assistant Lecturer, Rajahmundry College, to act as Third Lecturer in the same College during the employment on special duty of M.R.Ry. M. Rungacharyar, M.A.

Fort St. George December 9, 1890.

Surgeon-Major W. Price, M.D., will be considered to have acted as Professor of Surgery and Clinical Surgery, Medical College, sub *pro tem.*, from the date of Brigade-Surgeon Sibthorpe's departure to the date of relief by Surgeon-Major Browne.

APPOINTMENTS, LEAVE, &C.,

By the Director of Public Instruction.

The Director of Public Instruction is pleased to appoint M.R.Ry. P. S. A. Sundaram Aiyar, Sub-Assistant Inspector of Schools, Tinnevely Range, to be Sub-Assistant Inspector of Schools Trichinopoly Range vice M.R.Ry. D. S. Krishnaswami Aiyar, B.A., promoted.

2. He is also pleased to make the following promotions:—

M.R.Ry. G. Lakshminarayana Pantulu, 2nd class, to be Sub-Assistant, 1st class, vice M.R.Ry. D. S. Krishnaswami Aiyar.

M.R.Ry. S. Selvanayagam, 3rd class, to be Sub-Assistant, 2nd class, vice M.R.Ry. G. Lakshminarayana Pantulu.

These promotions will have effect from the date of M.R.Ry. D. S. Krishnaswami Aiyar's appointment as Assistant Inspector.—*Pro. No. 11815 of 21st November 1890.*

The Director of Public Instruction is pleased to make the following appointments in anticipation of M.R.Ry. A. Ramalinga Aiyar, being gazetted as Acting 3rd Lecturer, Rajahmundry College, vice M.R.Ry. M. Rungacharyar on special duty:—

M.R.Ry. M. Venkataratnam Sastri, 4th Assistant Lecturer, to act as 3rd Assistant Lecturer, vice M.R.Ry. A. Ramalinga Aiyar on other duty, or until further orders.

M.R.Ry. M. Kamesvara Rau, 5th Assistant Lecturer, to act as 4th Assistant Lecturer, vice M.R.Ry. M. Venkataratnam Sastri.

M.R.Ry. T. Kallapiram Pillai, 6th Assistant Lecturer, and Acting Sub-Assistant Inspector of Schools, Chingleput Range, to act as 5th Assistant Lecturer, vice M.R.Ry. M. Kamesvara Rau.—*Pro. No. 11800 of 21st November 1890.*

PROCEEDINGS OF THE DIRECTOR OF PUBLIC INSTRUCTION.

Grants.—Read the following letter from the Inspector of Schools, Central Circle, to the Director of Public Instruction, dated Madras, 20th November 1890, No. 6519:—

With reference to Proceedings, No. 6934, dated 8th July 1890, regarding the Special Middle School examination of May last, I have the honor to request to be informed the date from which grants should be calculated, and whether the grant has to be paid from the last year's or the current year's allotment.

The grant should be calculated from the date of the preceding examination. The amount passed will be paid from the current year's allotment.—*Pro. No. 12061 of 20th November 1890.*

Period of Training in Normal Schools.—Read the following letter from the Inspector of Schools, Northern Circle, to the Director of Public Instruction, dated Rajahmundry, 25th October 1890, No. 624-D:—

In Article II of the Code of Rules of Teachers' College, Saidapet, published in the Fort St. George Gazette, dated the 8th July 1890, the period of training is fixed at 18 months, but no change is made in Article 22 of Chapter II of the Grant-in-Aid Code under which Normal certificates can be issued to Secondary and Primary teachers who have gone through a course of training ordinarily comprising two continuous half-yearly sessions.

2. Now, I beg to be informed whether the 18 months' course fixed for training in the Teachers' College, Saidapet, should be adopted in the Secondary and Elementary

Normal schools in the mofussil as well or whether the course in them may continue to be two continuous half-yearly sessions as required by Article 22 of Chapter II of the Grant-in-Aid Code.

Soliciting an early reply.

The course may be extended to 18 months and scholarships allowed for the longer period, but students not being scholarship-holders cannot be compelled to undergo training for a longer period than one year to qualify for a Normal certificate. The Inspector is further referred to the Director's letter recorded in G.O., dated 14th July 1890 No. 499.—Pro. No. 11,112 of 4th November 1890.

Local Fund Service.—Read the following Proceedings of the Madras Government in the Local and Municipal Department, dated 4th November 1890, Mis. No. 2834-L:—

Read the following papers:—

From the President, District Board, Ganjam, dated 30th August 1890, No. 1141.

Srivatsa Ratho was a teacher in the Middle department of the late Government College at Berhampore. He was granted leave on loss of pay for one year and appointed temporarily as Headmaster, Board Normal School, Berhampore. Before the expiry of the leave, the Middle department was transferred to the Municipality. Srivatsa Ratho did not, however, join Municipal service as he was confirmed as the Headmaster of the Normal School.

2. I have the honor to request orders of Government whether, under these circumstances, Srivatsa Ratho can be considered to have carried with him his pensionary right with reference to G. O., dated 25th January 1889, No. 238-L.

From the Accountant-General, Madras dated 9th October 1890, No. 3296.

With reference to your endorsement, No. 731, dated the 22nd September 1890, on letter from the President, District Board Ganjam, No. 1141, dated 30th August 1890, regarding the pensionary claims of Srivatsa Ratho in respect of his Local Fund service, I have the honor to state that, as he was not transferred with a Government school to the Ganjam District Board, he cannot be said to have carried his pensionary rights with him under Article 813, Civil Service Regulations.

* The papers received with the endorsement are herewith returned.

No. 2834 L, Mis., Local and Municipal.

Order.—The Government is unable to accept the Accountant-General's interpretation of Article 843 (2) of the Civil Service Regulations. The article does not lay down that a teacher must be transferred with the Government school in order to retain his claim to pension; and Financial Department Resolution, No. 1445, dated 20th March 1888, seems to show clearly that any teacher who is on the establishment at the time of the school's transfer can claim the benefit of the rule. In the present case the master referred to actually was transferred with the school to the Municipal Council, for, though he was on leave, his name was borne on the establishment of the school and he retained a lien on his appointment. The question raised by the President of the District Board will therefore be answered in the affirmative.

(Signed)

A. G. CARDEW,

Under-Secretary

4th November 1890.

Communicated to all Inspectors of Schools, Inspectresses of Girls' Schools and Assistant Inspectors of Schools, for information and guidance.—Procs. No. 11730 of 20th November 1890.

Pay Bills.—Read the following letter from the Inspector of Schools, Northern Circle, to the Director of Public Instruction, dated Masulipatam, 30th September 1890, No. 569-D:—

I have the honor to submit the enclosed copy of letter, No. 166, dated 29th August 1890, from the President of the Taluk Board, Rajahmundry, for favour of your orders.

2. Seeing the difficulty and inconvenience felt by the Local Boards in paying the masters of their Salary Results schools such portion of the Provincial grant as was due to them, I issued a Circular (copy enclosed) in February last directing the Assistant and Sub-Assistant Inspectors to prepare Pay bills for the portion of the grant due to teachers and submit them to Presidents along with Provincial certifying memoranda, so that the Presidents might cash the certifying memoranda and pass the Pay bills. This Circular had not, however, been long in force when your Proceedings No. 10827, dated the 12th December 1889, in which it was directed that no Pay bill forms need accompany certifying memoranda for results grants from Provincial Funds to Board schools, as the grants are not of the nature of results portion of the salaries of masters, were received, and the practice of attaching bills for amounts payable to teachers was discontinued. So long as the Assistant and Sub-Assistant Inspectors of Schools are not only inspecting but also Managing officers as regards Board schools, I think the preparation of Pay bills for the portion of grant due to the teachers, which is a part of their results stipend, devolves upon them. Such being the case, the trouble is the same whether the bills are sent along with the certifying memoranda or later on, but the former course is more convenient, as by this the President receives both documents at one time, so that he may at the same time order the adjustment of the whole grant to the credit of Local Funds and pass for payment the Pay bill on behalf of the teachers for a portion of the grant.

3. If the preparation of the Pay bills is left to Boards themselves, the chances are that the bills will not be prepared either with accuracy or with expedition.

4. Under these circumstances, I suggest that your Proceedings No. 10827, dated 12th December 1889, be so modified as to leave it to the option of Taluk Board Presidents to prepare the Pay bills for teachers' portion of Provincial grant in their own offices, or to request inspecting officers to prepare and send them along with the certifying memoranda.

From L. C. MILLER, Esq., President, Taluk Board, Rajahmundry, to the Inspector of Schools, Northern Circle, dated Rajahmundry, 29th August 1890, No. 166.

In reference to your letter, No. 1976, dated 1st idem, I have the honor to remark that the Grant-in-Aid Code is silent as to the method of paying the results grants payable from Provincial Funds to Salary Results schoolmasters and it appears to me by that far the most convenient plan which can be adopted is that set forth in your Circular No. 201 of 5th February 1890, by which bills were prepared by Inspecting officers and forwarded with the certifying memoranda.

2. By this method the bills were prepared with more accuracy and despatch than is likely to be the case if they have to be made out in this office, and I would therefore request that, if possible, it may be reverted to.

3. The Treasury Deputy Collector has been addressed on this subject, but I do not see that he can draw money on a mere request endorsed by me on the certifying memorandum. I believe he has declined to do so in the case of other Taluk Boards. This being so, bills must be prepared and they can, I venture to think, be best prepared by the inspecting officers as was directed in your Circular above referred to.

4. The bills so prepared might most conveniently be sent with the certifying memoranda, but this would not be essential.

CIRCULAR MEMORANDUM.

No. 201.

Assistant Inspectors are requested to inform Presidents of Taluk Boards that in respect of the portion of the grants from Provincial Funds payable to teachers in Salary Results schools, Salary bills will in future be prepared by inspecting officers and submitted to Presidents along with the certifying memoranda payable from Provincial Funds; and that, after the certifying memoranda are countersigned by the Inspector, the bills for the masters' portion of the grant will have to be passed for payment by Presidents and forwarded to the teachers concerned.

SALUR,

(Signed) C. NAGOJEE PAU,

2th February 1890.

Inspector of Schools, Northern Circle.

The suggestion made in para 4. of the Inspector's letter is approved, and its adoption sanctioned.—Pro. No. 10963 of 30th October 1890.

CIRCULAR MEMORANDUM.

No. 13197.

The Director resolves to lay down the following rulings for the guidance of Inspecting Officers in calculating attendance for results grants.

These rulings supersede all previous rulings on the subject..

1. Attendance for the purpose of grant in the Infant, Ist, IIrd, IIIrd and Vth Standards must be calculated from the date of the last annual examination for grants for those standards up to the date of the present examination for grant.

This rule is also applicable to the IVth and VIIth Standards if they are examined *in situ*.

2. In the case of schools that present pupils of the IVth and VIIth Standards for the Primary and Lower Secondary examinations respectively, the date from which attendance should be calculated will be the same as that fixed for the other standards as noted above, but the date of the Primary and Lower Secondary examinations should be the dates *down* to which the attendance should be calculated. For example, if the Primary School examination is conducted on December 10th and the Grant examination of the school on November the 15th, the Grant examination of the previous year having been held on October 20th the attendance of a pupil presented for the Primary School Examination must be calculated from October 20th of the previous year to December 10th.

3. Attendance in the Vth standard should be calculated from the date of the previous Primary School examination up to the date of examination of the standard. In the case of schools that did not present pupils for the IVth Standard in the previous year, Rule (1) is applicable.

4. A pupil presented for the Primary School or the Lower Secondary examination in order to be eligible for grant, should have put in at least 90 days' attendance prior to the date of the examination.

5. In the case of schools in which a new standard has been opened, determining grants for that standard the attendance must be calculated from the date of the last examination for grant, or from the date of the Primary examination in the case of the Vth Standard, provided that the period for which grants are allowed does not in any instance exceed twelve months.

6. If the dates of the Primary and Lower Secondary examinations happen to fall within a few days of the date of the grant examinations then the Certifying Memoranda for all the standards may be issued together. In all other cases the Certifying Memoranda should be issued immediately after examination.

List of Subscriptions received by the Superintendent, L. A. Press, Madras, on account of the "Journal of Education," from 29th November to 26th December 1890.

	RS.	A.
A Lady for Nov. 1890...	0	8
President, Taluk Board, Srivilliputtoor ... Sept. 1890 to Aug. 1891...	4	8
Rama Iyer, by (V. Padmanabha Iyer), Trevandrum do. do. ...	4	8
Ramakrishniah, Madras ... for Nov. 1890...	1	0
K. V. Ramakrishna Iyer, Varganary, Trichy ... Aug. 1890 to July 1891...	4	8
G. Vencatashagiri Row, Rajahmundry ... Jan. to Dec. 1890 (Balance)...	2	8
Head Master, Board Normal School, Chicacole ... for 1891...	4	8
A. Sashigh Sastri, Esq., C.S.I., Padukota ... for 1891...	4	8
A Gentleman ... for Dec. 1890...	0	8
President, Taluk Board, Ongole, by Dy. Collector in charge of Treasury, Nellore, Sept. 1890 to Aug. 1891...	4	8
President, Taluk Board, Pattukota ... Aug. 1890 to July 1891...	4	8
A. F. Sealy, Esq., M.A.	27	0

Rupees.. 63 0

The Journal of Education

Madras

Vol. V.]

FEBRUARY 1891.

[No. 2.]

THE LOWER SECONDARY EXAMINATION.

We draw the attention of all managers of schools to the Government Notification regarding the Lower Secondary Examination which we publish in this issue. The Lower Secondary Examination takes the place of the Middle School Examination, which was held for the last time in December 1890. The new Examination differs from the old Middle School Examination in several important particulars:—

(1) The Lower Secondary Examination is to be mainly a *viva voce* examination conducted by Boards of Examiners at different centres in the same manner as the Primary School Examination.

(2) The scheme of the Lower Secondary Examination has been brought more in harmony with the Grant-in-Aid Code.

(3) A large number of special and technical subjects which were included in the Middle School Examination scheme and which candidates were allowed to bring up as optional subjects are now omitted from the Lower Secondary Examination scheme.

The purposes the new examination are to serve are specified in Article 2 of the Notification. The examination will serve as a final test for Lower Secondary Schools. It will also test the eligibility of pupils of the seventh standard in all aided schools for results grants under the Grant-in-Aid Code. It will serve, too, as a

test of the general educational qualifications of primary teachers of the higher grade. The Examination will of course be optional with managers of private schools, but it will be compulsory in all Government and Board schools. The Lower Secondary Examination will render candidates eligible for inferior appointments only in the Government service, and as a service test it will rank on the same level with the Primary School Examination.

While we consider that the scheme bears evidence of careful thought and consideration of the peculiar needs of Middle class education, we are compelled to take exception to the very first article of the Notification, which informs us that the "Examination shall be held annually in the months of December, January, February and March." It would have been much better, at least so it appears to us, to have said 'in November or December.' The results of the Examination should be in the hands of all Managers and Headmasters by the 15th January annually. We feel sure that Article 1 will work badly and cause much confusion in schools.

THE EDUCATIONAL SYSTEM IN ENGLISH PUBLIC SCHOOLS.

So long as the Indian system of education is a servile imitation of the English system, the discussions of important educational problems in England should prove of the greatest value to educationists in this country. The educational system in English public schools is the topic that is being discussed very widely at present in England. We are not concerned in any way with the contention between the supporters of the Modern and the Classical school. One party of educational reformers in England contends that public school education should be chiefly confined to the study of Latin and Greek, another insists upon the value of natural science, a third upon the value of English literature, a fourth upon the value of modern languages, and so on. We need not discuss here the *pros* and *cons* adduced by party reformers in defence of their theories. But the question that demands a solution is this:—How is the difficulty which the multiplicity of subjects places in the way of an educational system to be met? This is the general question that lies at the root of the discussion relating to public schools, and this is also the question which educationists have to confront in

this country as well. If the problem of the past has been to find the means of extending the educational system, the problem of the present is to find the means of confining it.

One thing has been brought out very prominently in the recent discussions on the subject, namely, the necessity for basing every educational reform upon a study of human nature. The schoolmaster and the educational reformer are bound to consider individual character. All the boys cannot be treated alike. Individual taste and capacity must be found out. This is the principle of *specialisation* which Mr. Weldon rightly terms the "great educational discovery of the present day." This principle has however its limitations. Specialisation must not be begun at too early an age, for tastes and inclinations do not reveal themselves when the boy is young. There is such a thing as a "community of intellectual interests," and the association of boys in forms and classes, for the purpose of instructing them in that portion of knowledge which is common to all cultivated persons, is an absolute necessity. This is the reform which Mr. Weldon has recently so ably sketched out. The subjects that form the common stock of educated people he calls the fundamental or *primary* subjects. The other subjects that should be taught according to the intellectual needs and capabilities of the pupils he calls *secondary* or accessory subjects. In one word, according to Mr. Weldon, educational reform should begin with rigidity and end with elasticity. It should begin with the subjects which all boys alike are bound to know and should end with such subjects as each individual boy is capable of learning with most profit. In our next we shall deal with the practical application of this important theory.

TECHNICAL AND INDUSTRIAL EDUCATION.

"I believe that we are on the eve in this Presidency of a really vigorous and powerful movement in favour of a sound system of technical education" wrote Mr. Grigg in 1888. It will not be out of place here to review briefly the progress and prospects of technical and practical education in this Presidency. It was only in the year 1884 that a beginning was made to develop in this Presidency scientific and technical education beyond the scope of the Madras University. The outline of a scheme of technical

education, drawn up by the Director of Public Instruction, was approved by Government in that year and its introduction was recognized as a "great step towards a sound system of education for South India." In the scheme referred to, the greatest importance—in our opinion too great an importance—was attached to the organization of a system of examinations. The outcome of this scheme was not only the institution of the Higher Examinations in Science, Art and Industries, but also the introduction of Industrial and Commercial subjects into the Middle School Examination. The former examination and the practical part of the Middle School Examination have since been brought together under the name of the Government Examinations in Science, Art, Industries and Commerce. The Middle School Examination has played some part in the development of elementary technical education and the effect of the Higher Examinations in Science, Art and Industries on institutions such as the College of Engineering and the College of Agriculture has also been satisfactory. One of the objects of the Upper Secondary Examination was to promote education of a practical nature. How far this examination will fulfil this object has yet to be seen.

Steps have been taken to develop the Government scientific and art institutions. Professorships of Biology and Physical Science have been established in the Presidency College. The College of Engineering has been completely reorganized and the School of Arts has also undergone some important developments. The reorganization of the College of Agriculture is also under consideration. Liberal aid has been given to aided Colleges such as the Christian College and St. Joseph's College, Trichinopoly, for science professors, and to Chengalvaroya Naicker's Commercial school. There are at present 30 Industrial schools and classes with 1,753 pupils under instruction. Some of the aided Industrial schools, such as the Nazareth school, the Anjuman-i-Mufeed-i-Ahla-i-Islam are in a very flourishing condition. We should also not fail to mention the opening of the Victoria Technical Institute, which is already proving a very efficient auxiliary to the Government technical institutions in Madras.

We have of course just at present the very beginnings of technical and practical education, but still the prospects are on the whole encouraging.

THE APPOINTMENT OF FELLOWS.

The Universities of Calcutta and Bombay have already had their Senates strengthened by the appointment of new Fellows for 1891. To the University of Madras a few Medical Fellows were appointed in the course of last year, but beyond these no additions were made to the Senate in 1889 and 1890. We venture now to express a hope that His Excellency the Governor will inaugurate his assumption of the Chancellorship of the University by the appointment, at an early date, of Fellows who may be added to the Arts and Law Faculties. The Engineering Faculty might also be advantageously strengthened. Among many men whose names occur to us as likely to adorn and strengthen the Senate, we may mention Mr. W. B. Morren, M.A.; Mr. B. Hanumantha Row, B.A.; Mr. E. H. Elliot, B.A.; Mr. M. T. Quinn, M.A.; Mr. A. A. Hall, M.A.; Mr. K. P. Sankara Menon, B.A., B.L., (*Secretary, Graduates' Association*); Mr. S. Sathianadhan, M.A., LL.B.; Mr. A. E. Castle Stuart Stuart, F.G.S., F.L.S.; F.R.G.S.; Mr. W. S. Meyer, B.A., C.S.; Mr. H. G. Wedderburn, M.A., Barrister-at-Law; Mr. W. Keess, M.A., M.R.A.C. Nor would it be amiss if, following the precedent of the University of Bombay, one or more of the following ladies were to be appointed Fellows, Miss Keely, Mrs. Brander, Miss Carr.

RAO BAHADUR V. KRISHNAMA CHARIAR.

Rao Bahadur Mr. V. Krishnama Chariar belongs to a leading Hindu family in Madras distinguished for its public spirit and the ever active and intelligent part taken by its members in all movements connected with the advancement of native education and oriental learning. His grandfather, Mr. Vembakam Ragava Chariar, had the distinction of being appointed as the first native Magistrate of the Town of Madras under the British Government. His father, Mr. V. Srinivasa Iyengar, was a self-made man, and is still remembered as a popular Sheristadar in the Chingleput Collectorate, full of sympathy with the wants and Mirasi institutions of the ryots. He was evidently the best educated native of his time as we find him selected as the spokesman of the native community to address the public meeting held in the Old College Hall on the 14th April 1841, to tender the thanks of the public to Lord Elphinstone; the

then Governor of Madras, when he opened with great *eclat* the first Government High School (now called the Presidency College) with Mr. E. B. Powell, C.S.I., as its first Head Master.

Of the native families who resorted to the new seat of learning established in 1841 on a secular basis, first at the present Presidency Magistrate's Court in the Pantheon Road, the boys of the Vembakam family took the lead; and among the first products of that Institution we find the names of the Hon'ble V. Sadagopa Chari, V. Ramiengar, C.S.I., V. Ramanuja Chariar, Runga Charlu (the late Dewan of Mysore) followed long after by the Hon'ble Mr. V. Bhaskiem Iyengar, the cousin of Mr. Krishnama Chariar. Thus educated in the pre-university days at the same time and in the same form of the Government High School as Mr. Justice Muthusami Aiyer, Mr. Krishnama Chariar took his "Proficient's" Degree in 1853, and he and Mr. Muthusawmi Aiyar were selected by Sir Alexander Arbuthnot, K.C.S.I., the first Director of Public Instruction in 1855-56, to be Deputy Inspectors of Schools to aid the European Inspectors of Schools to organise the District and Taluk schools under the Educational Despatch of 1854. Both these native officers of the Educational Department were specially commended in the Public Instruction Report for 1856-57 for their zealous and able services.

Mr. (Justice) Muthusawmy Aiyar soon left for the judicial service, while his schoolmate and fellow Deputy Inspector, unfortunately for his own future prospects, remained in the Educational Department. Having proved successful as one of the pioneers of Primary and Secondary Education, Mr. V. Krishnama Chariar was selected by Lord Napier's Government as the best qualified officer of the Educational Department to be placed in charge of its Book Branch which, in 1866-67 fell into chaos, with its accounts in hopeless confusion. Mr. Krishnama Chariar soon justified the selection made by the Government by bringing the Book Depot and the accounts into thorough working order and making his department self-supporting. In 1883-84 when the new Returns about educational finance and free trade in school books were urged by Sir Evelyn Baring, the Finance Minister of India, the Government Book Depot was abolished and the Curator, Mr. Krishnama Chariar, was buried alive officially, being permitted to retire on a moderate pension some ten years before his time.

Mr. Grigg, on the abolition of the Book Department, reported as follows respecting the Curator:—

"The Government are well aware of the excellent service done by Mr. Krishnama Chariar as Curator of Government Books. I am glad that by his good judgment and tact the affairs of the Depot were satisfactorily wound up."

Mr. Krishnama Chariar has rendered and is still rendering very useful service to Southern India as the editor of Vernacular Magazine and the author and translator of vernacular works. We have much pleasure in congratulating him on the honour now bestowed on him by Government.

NEWS AND NOTES.

LOCAL AND INDIAN.

A Sessional School is to be opened at Hadagalle in the Bellary District for three months.

Captain H. E. Love, Principal of the College of Engineering, will proceed to England shortly to attend a course of instruction at Chatham.

Government has sanctioned the retention of the services of the Carpentry Instructor in the Government College, Rajahmundry, for another period of two years.

A Muhammadan Girls' school, established at Kurnool by Mr. E. J. S. White, District Munsiff of Kurnool, has been constituted a Government school on the Salary Results System.

Some friends of the late Surgeon-Major A. M. McNally, M.D., propose raising a memorial fund with a view to founding a Prize in Hygiene to perpetuate the memory of the deceased Professor.

Three ladies have for the first time passed the Language Branch of the B.A. degree examination of the Madras University. Two are Europeans, Miss Jessie and Miss Phoebe Parsons, and one is a Native Christian, Mrs. Mary Ann Srinivasa.

There are three Kattywar Princes at present at the University of Cambridge. According to a home paper they are all fond of sport. One of them, Ranjit Singh, is an enthusiastic cricketer.

A new and handsome school building has been erected by the Madras Railway Company at Perambur at a cost of Rs. 13,000. The Railway schools reopened in the new building on the 19th January.

The Rev. E. F. Davies, M.A., the new Principal of the Doveton College, arrived on Saturday the 24th instant. He took over charge from Mr. S. P. D'Sylva, B.A., acting Senior Professor, on January the 26th.

Government has called upon the Syndicate of the Madras University to report if the First Arts Examination cannot be substituted for the Matriculation Examination, as a qualification for the L.M. and S. Examination.

We referred in our last issue to the opening of a school for the blind children of Palamcottah in connection with the Sarah Tucker Institution. Government has approved of some important concessions being allowed to this school in the matter of results grants.

Mrs. Van Ingen, nee Miss Hayes, who was the first lady student of the local Medical College to graduate as a Licentiate in Medicine, has just returned from England after obtaining the degree of Doctor of Medicine. She is to be re-employed in connection with the Countess of Dufferin's Fund in Bengal.

The Needlework Exhibition of the National Indian Exhibition comes off in March, and Managers of schools are requested to send in exhibits and specimens of Needlework to Miss Jupe, Maclean Street, Madras, before the end of February. The first prize in each case has been raised from a sovereign to a sovereign and a half.

Mr. J. H. Steel, late Principal of the Bombay Veterinary College, is dead. Mr. Steel was a prolific writer on professional subjects and published several standard works, treating of the diseases of horses and cattle. He established and conducted with marked ability the Quarterly Journal of Veterinary Science in India, the first Veterinary Journal published in this country.

At a recent meeting of the Senate of the Calcutta University several alterations were made in the regulations of the F.A. and B.A. Examinations to prevent students joining colleges at any period of the session and to ensure regularity of attendance among the students. The

proposal to raise the fees of all University examinations on the ground of pressing need of funds was referred to a Committee of the Senate.

On the recommendation of the Director of Public Instruction, Government has approved of the teachers in Government Salary Results Girls' schools being allowed 50 instead of 25 per cent. of the results grants. The Director in his letter to Government says: "The salary results system to be effective must secure on the results side a remuneration sufficient, when compared with the fixed stipend, to secure the maximum amount of effort and industry from the teacher."

The Ahmedabad Municipality in an address presented to Lord Harris asked for "free and compulsory education." This is a part of the reply:—"What is your proposal? Is it that the local funds are to find that money, or the provincial? In either case it means taxation. We have not got the funds. You know exactly what the provincial revenue is, and if a larger expenditure is to be made on public works or education, the money must be got from somewhere; and it means that you and your brethren tax-payers will have to supply the money for this free rudimentary education."

There was a proposal some time ago brought before the Senate of the Madras University to establish a degree in Dentistry, which the Medical College Council did not approve of. Referring to this Government in their review of the College report remark as follows:—"It is much to be regretted that the Council of the Medical College has been unable to lend its support to the proposal to establish a degree in Dentistry. The Government has no doubt that the Council was justified in the opinion it formed on this point, but the subject is one of considerable importance, and it is hoped that it will not be altogether lost sight of by the College. Should the Council see its way in future to affording the necessary training, His Excellency in Council will give any proposals made his fullest consideration."

Among the newly gazetted Fellows of the University of Bombay we note with warm approval the name of Mrs. Pechey-Phipson, M.D. In honouring her the Bombay University has honoured itself. We believe that the Madras University once had an opportunity given it of doing itself equal honour by enrolling the name of Mrs. Mary Scharlieb, M.D., among its Fellows, but the then Chancellor vetoed the suggestion.

Mr. Justice Birdwood, the new Vice-Chancellor of the Bombay University, in his Convocation address, paid a graceful compliment to

Dr. Mrs. Pechey-Phipson in referring to her election as a Fellow of the University. She is, he said, so well known in Europe as one who bravely fought her sisters' cause, even when an Edinburgh student, that she is assured in advance of the right hand of fellowship in Bombay, and there is no doubt of hearty congratulations from many great seats of learning. Her triumph, where Dr. Pechey-Phipson happens to be best known, is not only a triumph for the cause of the lady-doctors, which she has so close at heart, but this new step in advance should mark an era in the general education of women.

Mrs. Brander, the Inspector of Girls' schools, Central Circle, who is now in England, read an interesting paper on the Education of Indian Women at a meeting of the National Indian Association in London. Sir M. E. Grant-Duff, who presided on the occasion, introduced Mrs. Brander in the following words:—

"More than twenty years since, when that very able man, Lord Napier and Ettrick, was presiding over the Government of Madras, he wrote to the Duke of Argyll, then Secretary of State for India, to ask him to send out a lady to take charge of the Normal School for the training of girls as teachers. The Duke took a great deal of trouble in the matter. At last there appeared at the India Office a young lady whose success was so great that she might have entered in her diary the words, *Veni, Vidi, Vici*. She received the appointment, and was introduced to Lord Napier in appreciative terms. Events subsequently proved that these terms, however appreciative, were correct. When I went to Madras some years later, Miss Bain, who had become Mrs. Brander, had acquired a reputation for sagacity, intelligence, and all the qualities which a Government servant should possess."

Mrs. Benson, in her interesting and instructive article on *English Girls' Life in India*, gives the following advice to her English sisters in this country:—

"By taking an interest in native girls' schools, and helping them with their needlework (which requires no knowledge of their language) and looking on at their pretty dances, and examining their neat copy books and free-hand drawings, you will be surprised to find that you have earned the grateful regard of some of the children's parents, and before long will be asked to visit them in their homes. There is a long vista opened for new sympathies and fresh experiences. These little girls, on leaving school, lead very joyless lives, with few toys and no books and no outdoor freedom, fun and frolic, such as we enjoyed in our girlhood." In the same article Mrs. Benson recommends English girls to read works

descriptive of Indian life and thought:—"The story of the *High Caste Hindu Woman*," she says, "so picturesquely written by Pundita Ramabai, and her own romantic life and noble work, must rouse our interest and sympathy in the women of India. The story of "*Saguna*" telling us in English of the experiences of a Native Christian girl, and "showing us as others see us," will help to rouse the same interest, while it throws light on much unknown country as regards the lives and feelings of the natives around us."

Apropos of female education, some remarks made by Lord Harris, in his speech the other day at Surat when distributing the prizes at a school in that city, are worth quoting, indicating as they do the utilitarian side of the argument from the male point of view.

"I think," he said, "there are good reasons for educating women. She has a right to know and to understand what is going on around her; and she has the opportunity of occupation when educated. But there is a still better reason left, it is a selfish one perhaps—but then man is naturally more selfish than woman. After all, what are the great duties that lie before a woman? Are they not to be a loving and sympathetic wife and a wise and tender mother? It seems to me that it is not open to argument, who has the better chance of displaying all those qualities—the educated or the uneducated woman. A wife may be most loving, but how can she show an intelligent sympathy in her husband's work and worries if she does not understand them? A mother may be most tender; but how can she be most wise, apart from that natural wisdom which intuitively comes to her, if she is uneducated? From man's selfish point of view, then, I say, it is in his interest to encourage women to take advantage of education. It is his wife who is his helpmeet, and she will be most meet to help him when she can take an equal or common interest in his labors."

LITERARY AND GENERAL

There are seven American girls among the students of Newnham College, Cambridge.

Aberdeen University has received a bequest of £10,000 under the will of the late J. G. Chalmers to endow a chair of English Literature.

The next number of the *Paternoster Review* will contain an article by Cardinal Manning on "In Darkest England."

Mr. Francis Brandt, B.A., (formerly scholar of Brasenose and late Judge of the High Court of Madras,) has been elected to the Teachership of Tamil and Telugu in the University of Cambridge.

Messrs. Cassell and Company are issuing, in sixpenny monthly parts, a new fine art edition of "Robinson Crusoe," with upwards of one hundred original illustrations, expressly executed for the work by Mr. Walter Paget.

Says an American educationist:—"Geography will have accomplished its highest purpose when it shall have awakened a desire in the pupil's mind for more information than any text-book can give concerning the manners, history, customs, and resources of a people."

Miss Mary E. Wilkins is the new literary metcor, and divides attention with Rudyard Kipling. Her charming collection of stories entitled *A Humble Romance*, has received the most flattering notice in America and England, and her unique sketch, "The Revolt of Mother," is the gem of the September *Harper*. Her home is in Randolph, Mass., where she is at work on a second volume.

Concerning Rudyard Kipling, Andrew Lang writes: "To myself he seems one of two, three, or four young men,—and he is far the youngest,—who flash out genius from some unexpected place, who are not academic, nor children of the old literature of the world, but of their own works. He is not in tune with our modern civilization, whereof many a heart is sick; he is more at home in an Afghan pass than in the Strand."

"Cramming," says Mr. Weldon, "is not necessarily bad teaching, but it is rapid teaching, and rapid teaching cannot be the best. But on the whole, where the "crammers" have achieved success, and the schoolmasters have failed to achieve it, it has been not so much by superiority of skill as by singleness of aim. It is because the "crammers" have subordinated system to individual cases, while the schools have subordinated individual cases to system."

The London University records for 1890 are already remarkable for the failure of all the candidates for the degree of D.Sc. They are now signalised by the success of two candidates for that of D.Lit. The successful candidates are Mr. R. J. Lloyd and Mr. John Taylor—the former in English, the latter in Hebrew. This is the first time that

the degree has been awarded since the revision of the regulations in 1885. Mr. Lloyd presented a thesis upon "Vowel-Sound," embodying a theory, of which some account was given, under "Meetings of Societies," in the *Academy* of April 18.

The *Boston Journal of Education* has the following on the subject of School Prizes:—Prize-giving in school is a dangerous thing. Some prizes are naturally harmful, some helpful, and all need to be skilfully administered. From our standpoint there should never be any prize for regular school work. The required lessons should be learned as best they may, with the praise and judgment passed upon faithfulness and progress, rather than the attainment of the highest technical results. There are, however, certain extra things to be taken by way of general awakening of interest, to quicken specific activities, for which it is well to have some special reward that gives a relish to the work. For instance, a school is not inclined to observe anything with care. Early training was defective. A teacher may offer some simple, appropriate thing, not specially valuable in itself, to the child that learns the most wild flowers by name and can describe each so that the school recognizes it. If only the children that like such things try it; if it is done for the special purpose of winning the prize; if the interest centres in the prize,—it is all wrong. But if the prize is simply the teacher's sacrifice as evidence of appreciation of their work, and simply means that he would like to give it to teach one who tries, if he could afford it, then it may be as beneficial as it is pleasant. The virtue and harmlessness of prize-giving depends upon the skill with which it is done. We have known fine results in special cases like the above, but we have never known good to result from prizes for regular school work. If there appears to be any risk in prize-giving, don't try it.

REVIEWS AND NOTICES OF BOOKS.

THE STORY OF INDIA TO THE DEATH OF AURANGZEB AND AN ELEMENTARY HISTORY OF BRITISH INDIA. By REV. E. SELL, B.D., and REV. J. T. LAWRENCE, M.A. Madras: S. P. C. K. Press, Vepery.

The first of these little books is intended for the 4th Standard Examination in Results Grant schools. We like the plan of the book, which contains in 27 pages eleven short Chapters and a Conclusion. The worst of such books, as a rule, is that they become over-crowded with names. In the present case this is not very conspicuous. For Anglo-Vernacular schools of the 4th Standard it will be, in our opinion, absolutely necessary to have the book translated into the various

Vernaculars. The English in which the little book is written, is, we are sure, far above the comprehension of Native students in any 4th Results Standard class. The *Elementary History of India* contains a Preface in which we are told that this History is meant for "the Fourth class (or according to the old classification the 2nd class)." We are not able to follow this. The 4th Results Standard for which the *Story of India* is intended is the old 2nd (Anglo-Vernacular) class and that this is the class for which the authors intend this book is made clear by their stating that Sinclair's Outlines of Indian History should be continued to be used in the classes of the Lower Secondary Department. Whatever elementary class this book is intended for we are able to give it a warm welcome. It consists of fifteen Chapters, contained in 40 pages, and brings us down to the end of the East India Company. We recommend the authors to have it translated into all the Vernaculars. There are three rather rough but very serviceable little maps in the book.

ENGLISH COMPOSITION AND RHETORIC by ALEXANDER BAIN, LL.D., and JOHN ADAM, M.A. Madras: Tawker Sadananda and Co., 1891. Pages, 384. Price, Rs. 2-8.

This is a book we are glad to welcome. We cannot too highly commend it to the notice of Professors of English, and we believe that its introduction into our Colleges will go far to remedy the very serious defects in English composition now so noticeable in the English essays sent up by candidates for the B.A. Degree. The work is one which requires careful and close study, and which will well repay such study. It is not an elementary work, and will require to be taught to First in Arts students. In the hands of a careful teacher of English it is calculated to do much in the way of enabling our College students to acquire a correct style of writing English. We are of opinion that in the F.A. classes it will be sufficient if Part I, pp. 3—114, and Part III, pp. 254—309 are studied, while B.A. students may master at their leisure the remaining portions of the book. The work is well got up and will, we hope, command a good sale, though if the Indian Editor wishes to secure an extensive sale for the book, he should, we think, put a somewhat lower price upon it. We strongly recommend each and every master in our schools to procure a copy of the work.

A FIRST WORK IN TRANSLATION, by C. V. SUBRAMANIA AIYAR, B.A., Chittur (Cochin).

We acknowledge with thanks the receipt of the first six chapters of a new work on Translation by Mr. Subramania Aiyar, and have great pleasure in observing that it is the very 'complement' to the *First*

Work in English that Mr. Adam, in the preface to his edition of that work, says he would like to see published by a competent person. This new work on Translation is on the same lines as Murison's Book, and is full of exercises in Translation from Malayalam into English and vice versa. It reflects great credit on the author, who we believe is the first to carry out the suggestion made by Mr. Adam. It supplies a real want, for if there is one subject which is taught in our schools less systematically and less satisfactorily than another, it is reciprocal translation. The new work supplies a good system of teaching this subject, and if it be introduced into Middle and High schools as a textbook on Translation and be further supplemented by the *First Work in English*, we have no doubt that that the majority of students will, by the time they reach the Matriculation class, have made considerable improvement not only in Translation, but also in their general powers of expression. We even venture to hope that the complaint that is now being made about the standard of English written by Matriculates being very low, will soon become a thing of the past.

A HISTORY OF EIGHTEENTH CENTURY LITERATURE (1660—1780). By EDMUND GOSSE, M.A. Macmillan & Co., London and New York.

We owe an apology to the publishers of this work for the long delay that has taken place in our noticing it. The volume before us is one of a series of four intended to embrace the whole of English Literature; and the periods have been distributed among four well-known literary men. "Early English Literature," by STOPFORD BROOKE; "Elizabethan Literature," by GEORGE SAINTSBURY; "Eighteenth Century Literature," by EDMUND GOSSE, and "Modern English Literature," by EDMUND DOWDEN. As is apparent from the two volumes already issued, each author has been left at liberty to proceed on a plan of his own covering the ground allotted him as he pleased; there is therefore no uniformity in the mode of treatment; but we have, or shall have, four distinct periods of our Literature dealt with by four of the greatest living critics and scholars, each after his own fashion. Neither Mr. Gosse nor the other writers in this series—we are glad to say—follow Mr. Saintsbury in his mode of treating and dividing his subject, on which we commented in our review of his *Elizabethan Literature*.

Mr. Gosse, already well known for his edition of Gray in 4 vols.—now a standard work—and his admirable biography of 'Gray' in the 'Men of Letters' series, was well fitted to be the exponent of the period he has chosen. Two difficulties, however, faced him at the outset,—the one was a suitable title for the period between 1660 and 1780, and the other the problem of 'proportion';—the vast landmarks of the preceding

century, the colossal Shakespeare and Bacon and Milton are absent, the general level of merit is much higher, while the solitary altitudes are more numerous but considerably less commanding. His "first and most arduous duty," he tells us, "was to make a rough plan of the work, selecting and excluding names, determining the relative value of each, and deciding what proportion to the space at his command could be spared for the individual figures." It is worth while to note the divisions Mr. Gosse makes of his work. I. Poetry after the Restoration; II. Drama after the Restoration; III. Prose after the Restoration; IV. Pope; V. Swift and the Deists; VI. Defoe and the Essayists; VII. The Dawn of Naturalism in Poetry; VIII. The Novelists; IX. Johnson and the Philosophers; X. The Poets of the Decadence; XI. The Prose of the Decadence; XII. Conclusion. The first three chapters include the last forty years of the seventeenth century, each chapter dealing with a different class of literature. We consider it very inconvenient, especially for a young student, that the reader has three times to go over the same half century;—when he has finished with the poets after the Restoration, from Waller to Pope, he has to turn back again to 1660, and go through the drama from Dryden to Addison; then to again review the cycle once more and to go back through its prose from Cowley to Swift. It is the same with the periods into which the eighteenth century is divided; after we have buried the novelists, we have to go back and review the philosophers; having got quit of the poets of the Decadence we must begin again with the decadence period for the prose writers, and in this way our author will appear before us in two or three capacities at long intervals. This method of writing of the literature of a period has its advantages as well as its disadvantages; but it renders the work—what indeed from other reasons it is—one rather for the scholar or professor to refer to than for the student to use as a class book. But even for the professor Mr. Gosse has a tantalising way of taking it for granted that a reference or allusion is known, when a word or two more would tell what one who has not his literary resources may be unable to discover. For example:—"Dryden, as was afterwards remarked, was but 'faintly distinguished in his thirtieth year.'" Why not say by whom this was remarked? "Southerne survived to receive the homage of Gray." We should have been told that the 'homage' was his reference to Southerne in his letter to Walpole in September 1737, in which he describes the Burnham beeches. "The most amusing thing about the whole incident of this play, *Irene*, is Johnson's odd remark to Garrick about the white stockings of the actresses." Was it modesty that prevented him letting us have this odd remark? "Blair's bucket of warm water." What is the allusion?

As in Mr. Gosse's other prose works we have noticed not a few blemishes of style and inaccuracies. To take two or three:—"In 1720 every poem which we have mentioned was either produced or planned," instead of 'By 1780 * * had been, etc.' Another incorrectly constructed sentence occurs on page 347. "The three first volumes." (p. 347); "Either" for 'each' (p. 313); "hunched-back" (p. 27); and his unnecessary use of French words,—e.g., *genre* and *pastiche*. But in the matter of accuracy of statements, facts, names and dates we know of no book, embracing so many, as faultless as this. Speaking of Burke Mr. Gosse says he 'had little ambition for academic honours'; he was, however, a classical scholar of Trinity College, Dublin. The date of Johnson's letter to Lord Chesterfield is given as 1735,—a printer's error no doubt; and the titles of two of Gray's poems are inaccurate—no probably to Mr. Gosse's familiarity with them.

One of the things that have pleased us most in this *History of Eighteenth Century Literature* is the dates; we found some that we wanted, and Mr. Gosse need not have apologised in his Preface for its being copiously starred with dates. On the whole it is a delightfully companionable volume; one that may be taken up and read anywhere one opens, and read again with fresh interest. It is a work which no College Library should be without, and which no student of our Literature can take up without learning something new—whether of fact or in criticism—and learning too how much more there is for him to learn.

A STUDENT'S HISTORY OF ENGLAND. By SAMUEL RAWSON GARDINER, Fellow of All Souls' College, Oxford, Vol. I., B.C. 55—A.D. 1509. London: Longmans, Green and Co., 1890.

We have no hesitation in saying that Mr. Gardiner has at last succeeded where so many have tried and failed. His Student's History has been expected with hopeful trepidation. That he possessed three qualifications for the task had been already demonstrated. Abundant knowledge and sound scholarship are distinctive features of his histories of the reigns of James I and Charles I and of the Great Rebellion. His *Outlines of English History* proved his ownership of a simple and nervous style. All his works, moreover, have been distinguished by an earnest desire to be impartial; and though we may not always agree with his conclusions, we must admit that they have been honestly arrived at, and that rarely anything can be added to or varied in the evidence adduced. For a student's history still another qualification was requisite—the skill to select judiciously and the ability to generalize wisely. This power Mr. Gardiner has now shown himself to possess, with the result that not only is the present work simple and elegant in style, and

fair and accurate in its statements of fact, but perfectly balanced throughout. The attainment of the last end is perhaps the most difficult of all to the historian. The common idea of the writer of a short history is to leave out details,—the shorter the history, the more are left out. The result is a collection of the more important, or at least the more striking events, without apparent cause or effect or connection. But if history is a story of evolution, then this method is not history. A glance at the present work will show it to be full of detail; a close study will prove that every detail is inserted for a purpose and has a manifest bearing on the development of the story.

If we were to select any portions for special praise, we should pitch upon those dealing with constitutional and institutional history. Intwoven with the narrative and yet standing out clearly like the pattern of a brocade, are those passages, which we may mention as remarkable at once for their clearness and the wealth of learning that underlies them, dealing with the nature of the Anglican Conquest (pp. 28-33), Edgar's England (Chap. V.), and the Peasants' Revolt (Chap. XVII).

A critic must naturally have his grumble, and we believe Mr. Gardiner would be the very last to assert his own infallibility. But we have observed very little to grumble at. We must, however, protest against the statement about the Druids, that "in Ireland, and perhaps in Britain, they were mere conjurors and wizards." In speaking of the Gesiths, we are told that the name was abandoned for that of Thegns, and the impression is left on the reader that Thegn was no more than an alternative later name for Gesith. Doubtless the Gesiths became absorbed in the Thegns and lost their distinctive title; but we do not think it can be held that all Thegns were originally Gesiths. Mr. Gardiner's account of the relations between Scotland and England is by far the best we have seen in any history whatsoever, bringing out very lucidly how the principles and practice of feudalism affected them. We think however that in the question of Bruce and Baliol he makes it appear as if the parties were too much influenced by the comparatively modern idea of primogeniture. Sir H. S. Maine it is, if we remember aright, who adduces this very dispute as an illustration of the mediæval notion,—the *primus genitus* being really the first in point of time. Thus a second son, a strong man armed, would step over his nephew, the eldest son of the eldest son. Bruce's claim, viewed in this aspect, appears much more reasonable than when exposed to the searching light of modern English Law. These however are but minor matters.

It is not easy to select representative passages from such a book. We are tempted to cull some of the constitutional paragraphs, but they would not be improved by transplanting. The following extracts

will however give a good idea of the author's style. The first describes Jack Cade's rebellion:—

"Suffolk's supporters remained in office after his death. The men of Kent rose against them, and found a leader in an Irish adventurer, Jack Cade, who called himself Mortimer, and gave out that he was an illegitimate son of the late Earl of March. He established himself on Blackheath at the head of 30,000 men, asking that the burdens of the people should be diminished, the Crown estates recovered, and the Duke of York recalled from Ireland to take the place of the present councillors. Jack Cade's rebellion, in short, unlike that of Wat Tyler, was a political, not a social movement. In demanding that the Government should be placed in the hands of the Duke of York, Jack Cade virtually asked that the Duke should step into the place, not of the Council, but of the King—that is to say, that a ruler who could govern should be substituted for one who could not, and in whose name the great families plundered England. It was this demand which opened the long struggle which was soon to devastate the country. At first it seemed as if Jack Cade would carry all before him. London, which had the most to gain by the establishment of a strong government, opened its gates to him. When, however, he was tested by success, he was found wanting. Striking with his sword the old Roman milestone known as London Stone, he cried out, "Now is Mortimer lord of this city." His followers gave themselves up to wild excesses; they beheaded Lord Say and his son-in-law, the Sheriff of Kent, and carried about their heads on pikes. They plundered houses and shops. The citizens who had invited them to enter now turned against them. After a fight on London Bridge the insurgents agreed to go home on the promise of a pardon. Jack Cade himself, attempting to gather fresh forces, was chased into Sussex and slain."

The second extract gives the origin of the Court of Star Chamber, too commonly supposed to be a mere invention of the devil in the guise of Charles I.

"Nothing could serve Henry better than this abortive rising. At Bosworth he had been the leader of one party against the other. At Stoke he was the leader of the nation against Irishmen and Germans. He felt himself strong enough in his second Parliament to secure the passing of an act to ensure the execution of the engagements to which the lords had sworn two years before. A court was to be erected, consisting of certain specified members of the Privy Council and of two judges, empowered to punish with fine and imprisonment all who were guilty of interfering with justice by force or intrigue. The new court, reviving, to some extent, the disused criminal authority of the King's Council, sat in the Star Chamber at Westminster. The results of its establishment were excellent. Wealthy land owners, the terror of their neighbours, who had bribed or bullied juries at their pleasure, and had sent their retainers to inflict punishment on those who had displeased them, were brought to Westminster to be tried before a court in which neither fear nor favour could avail them. It was the greatest merit of the new court that it was not dependent on a jury, because in those days juries were unable or unwilling to give verdicts according to their conscience."

We must not leave this book without a word for the illustrations. The name is correct; they are not merely pictures, they illustrate the

history. The series exhibiting the development of architecture from the Saxon Church at Bradford-on-Avon to the stately Chapel of King's College, Cambridge, is deservedly worthy of praise. The same must be said of the series portraying the changes in dress and armour from Saxon to Tudor times. The preparation of these illustrations was entrusted to Mr. St. John Hope, Secretary to the Society of Antiquaries.

We shall cordially welcome the remaining portions of this History which will provide exactly the text-book required for our F.A. classes. But the treatment of the 18th and 19th centuries will tax even Mr. Gardiner's powers, and if he can master that difficult era, his success will be complete.

ACKNOWLEDGMENTS.

We have to acknowledge with thanks the receipt of the following:—

BOOKS.

Ghaucer's Prologue, by W. Skeat, Oxford: Clarendon Press. Price one shilling;

Elementary Mechanics, by J. C. Horobin, B.A., George Bell and Sons, London;

MACMILLAN AND Co.'s Publications:—

Southey's life of Nelson, by M. Macmillan, B.A., with Introduction and Notes.

Shakespeare's Twelfth Night, Tempest, Cymbeline and Othello, by K. Deighton, B.A.

Milton's Comus, by William Bell, M.A., Longsley.

LONGMANS, GREEN AND Co.'s Publications:—

The Harp, Euclid, by Edward M. Langley, M.A., and W. Seys Philips, M.A.

Needlework and Cutting Out, by Emily G. Jones.

Drawing Books (a series of 18).

T. NELSON AND Son's Publications:—

The Royal English Classics:—Macaulay—Lord Clive: Scenes from his life; Addison—Sir Roger de Coverley (From "The Spectator"); Scott—Marmion, Canto VI.; Milton—L'Alegro, Il Penseroso, &c.; Goldsmith—The Deserted Village.

INDIAN PUBLICATIONS:—

English Composition and Rhetoric, by Bain and Adam, Price Rs. 2-8. Madras: Tawker Sadananda and Co.

Bacon's Advancement of Learning, Book I, Edited with Notes, Analysis and Index, by W. E. Hoare, Madras: Srinivasa, Varadachari and Co.

Notes on the Selections from Emerson's English Traits, with an Introduction, by A. E. Duchesne, B.A. Madras: Tawker Sadananda and Co.

Notes on Xenophon, by R. S. Sheppard, B.A. Madras: Tawker Sadananda and Co.

Algebra Made Easy, 2 Vols., by K. P. Basu, M.A. Sakha Press, Calcutta.

The Story of India, Price 2½ annas, and an Elementary History of British India, Price 4 annas, by the Rev. Edward Sell, B.D., and Rev. John T. Lawrence, M.A. Madras: S. P. C. K. Press, Vepery.

The Report on Education in the Province of Mysore for 1890-91.

A Liberal Education: its true End and Value, a Lecture delivered by Eric Robertson, M.A., Officiating Principal, Government College, Lahore.

MAGAZINES.

The *Journal of Education* (London) for January; The *Educational Times* for January; *Journal of Education* (Boston) for December; The *Christian College Magazine* for January; The *Secunderabad Parish Magazine* for January; The *Bombay Educational Record* for November and December; The *Teacher* (New York) for December; The *Punjab Magazine* for December; The *Janavinodini* (a Tamil monthly) for January.

CORRESPONDENCE.

To the Editor of the "Journal of Education," Madras.

THE POSITION OF SCHOOLMASTERS.

SIR,—With your kind permission I should like to say a few words with respect to the comments you made in your last month's issue on a paper read by me on behalf of the Teachers' Association, Saidapet, and entitled "The Position of Schoolmasters in England."

The remedy which I proposed in my paper for the present unsatisfactory position of Secondary Schoolmasters in England was "in the action of Government, which should, as in other countries, appoint a board for the management of endowed schools, and formulate some tests of efficiency in teaching before giving appointments to teachers." To this you make one objection and one only, viz., that such a step would seriously retard private enterprise in the matter of education, and that the high educational status of Great Britain is chiefly due to private activity. Now the educational status of England is only relatively high. I am inclined to think that in educational matters Germany,

France and America rank before England. I have some personal knowledge of German and French schools and that knowledge only confirms what Matthew Arnold and others have said respecting the educational system of those countries, while Dr. Fitch's little book on American schools and colleges seems to leave no doubt that things are better managed across the Atlantic than in England. But whatever reputation England may enjoy for its educational status is undoubtedly due in large measure to private enterprise and benevolence. So far as elementary education is concerned, England was entirely indebted to voluntary action up to 1870. But the most bigoted sectarian is bound to admit the extraordinary revolution which elementary education has passed through since the Government made itself directly responsible for the education of the masses by the Elementary Education Act of 1870. That Act is rapidly breaking down the wall of the prejudice which for centuries has separated class from class and sect from sect. It has created a craving for intellectual food among the lower middle class which Government Continuation Evening Classes, University Extension Lectures, Home Reading Unions, and a flood of literature seek to satisfy. Nor can one deny the good which has resulted to secondary schools from the action of the Endowed Schools Commission. The action of the Government was halting and lame enough, but it at least put a stop to the iniquitous misappropriation of private bequests, it allotted sums for the endowments of middle class schools and suggested a curriculum of education more adapted to modern requirements. The fact is, that the paternal action of the Government, if not unduly exercised, so far from retarding private enterprise would by its sanction and direction give a further lease to institutions both private and semi-public, in the efficiency of which the public mind is now beginning to be divided. Over-centralization, the bane, perhaps, of some countries, need not be feared in a country like England, the history and spirit of the people being diametrically exposed to that principle. But in so vital a matter as the education of the nation, affecting as it does the national welfare, we cannot afford much longer to sacrifice efficiency to liberty so-called. As you justly say, my experience of the Indian system of education is limited, but I never meant to infer that what was good for one country was equally good for another, and that the educational system of India could be transplanted in its entirety to England, where educational anomalies have existed for ages. And as regards centralization in educational matters in India, I think, sir, you have confused cause and effect. The policy of the Government may have perpetuated, even accentuated, the evil to which you allude, but it certainly did not create it. No, the reason for native apathy must be sought for in climatic and

other causes. Every agency which seeks to make the people more self-reliant should be heartily welcomed and it seems to me that the salvation of the country cannot be better worked out than by the means of a thorough system of education adapted to the various needs of the different classes, a system which the Government alone is able to formulate and administer. You are quite to the point when you say that the present position of Secondary Masters both in England and in India is due to the fact that teaching is not regarded as a profession. But strangely enough you fail to see and apply the remedy which is contained in the very suggestion you discuss. The teaching body does not rank as a profession solely because it does not give the same public pledges of its efficiency as do the doctor, the barrister and the solicitor. In Germany, France and America where these guarantees are demanded, teaching is regarded more as a distinct profession, and the individual members of the body are the gainers both materially and socially. In India such colleges as the Teachers' Training College at Saidapet must in time effect a great transformation in the prospects of those trained, provided these latter devote themselves with single-heartedness to the honourable work of their lives, and by their efficiency as practical teachers justify the existence of an institution which at the cost of much labour and expense seeks to fit them for their profession. Already the increased salaries which are offered to trained teachers from the College justify the hope that in the near future these teachers will be the means of raising the status of their profession throughout the Presidency, to say nothing of the good which must accrue to the country generally from the presence of really able and efficient teachers. In England, too, the Government has done much for elementary education and something for secondary education. But its responsibility does not rest there. What the Universities do in the way of ascertaining the efficiency of Secondary Schools and Teachers by the inadequate system of Local and Commercial Examinations, what the Universities do not do in supplying fit Teachers for Secondary Schools, that the Government should do in a thoroughly comprehensive manner and so remove the stigma which rests on Secondary Education and Teachers in England.

THE TEACHERS' COLLEGE, SAIDAPET, }
January 27th, 1891.

Yours obediently,
THOMAS DENHAM.

CHILD MARRIAGE.

BY MRS. PECHÉY-PHIPSON, M. D.

(Concluded from page 27.)

II.—Another disadvantage of premature marriage is that in those cases where the young wife bears children they are puny and sickly. Thousands of still-born children, hecatombs of dead infants, an ever-increasing number of sickly, disfigured and deformed people bear witness to the results of this pernicious custom. Ah! gentlemen, you are very tender about the life of the beast, it is only your wives and your children you sacrifice, bringing them to a painful death, or, what is worse, a lingering life of misery—a life without hope, without any of the pleasures which make life worth living, in the case of the wives without those mental resources which can make the mind rise superior to the ills of the body. Tell me, any one of you, has it never occurred to you when you have looked upon your young wife turned into a decrepit old woman through your doing, that she has a right to revile you as the author of all her affliction? Does it never dawn across your mind as you look upon the sickly boy whom you tend with so much care as the sole hope of your declining years that instead of returning your affection he would be justified in turning upon you and cursing you as the author of his wretched being? Yes, he would be right. You and you alone are responsible for all this cruel misery; to you are due these young faces saddened by days and nights of lingering pain, these disfigured countenances, these mis-shapen limbs. Are you not ashamed to have begotten them? Is it by these you would perpetuate yourself, so that men may say, looking upon your sons, "These men bear the sins of their father?"

III.—And the evil increases as time goes on in each of such families. As I said before where a woman marries at twenty-five, her offspring increases in strength and vigour until she attains the age of forty. But on the other hand, if maternity begins before maturity the reverse takes place. With every fresh effort at childbirth the mother gets weaker, the child more sickly. The demands of maternity have been made while the claims of the maternal system for its own growth are still unsatisfied; the mother grows at the expense of the child, the child at the expense of the mother, both are ill-nourished and stunted.

IV.—If the result to the family is such as I have described, what must be the effect on the race? A slow but sure Degeneration. And has not this taken place? Is the race now such as you read of it in early time before the Mogul invasion brought the zenana and child-marriage in its train? Where are the Rajputs and the Mahrattas with their manly exercises and their mental vigour? For centuries you have been children of children and there is no surer way of becoming servants of servants. How forcibly the introduction—I might almost say the necessary introduction—of these customs was brought before me by a remark which fell from the lips of an English lady who had been for some time resident in a certain Native State of known backward tendencies. She said, "No women are seen in the street. It would be impossible for a respectable Hindu woman to appear in public. She would disappear, and never be heard of again?" There you have the origin of both these customs. Under such a condition of lawlessness and personal insecurity the zenana and child-betrothal with early marriage become almost imperative necessities. The women to be secure from insult must be guarded at home, and the father would be anxious to secure for his daughter a protector in the event of his own death. In the unsettled state of the country during and after repeated invasions is to be found the excuse for two customs which in the course of centuries have become so much a part of the life of the

people that they are even spoken of by those who wish to retain them as religious observances. Thus I see that, in the dispute going on in the State of Gwalior between the Jain Bannias and Brahmins of Bajnangarh in Gwalior, the Jain Bannias complain that "For the last four years our children's marriages are stopped, and some of our caste persons are grown big. They cannot be married; and in our caste we consider it a great sin to keep a daughter unmarried when she is grown big; and owing to this grief several of our caste people have died." Rise, get you to Gwalior, Jain Bannias of Bombay! choose you wives from the daughters of Bajnangarh, wait patiently for them till the temples be again open; and your descendants shall be such as have not been seen for generations, and your sons, blessed themselves with health and strength, shall rise and call you blessed.

If any would confront me with the objection "our religion commands us" I can only answer that religion concerns itself with the relations of man to God and his duties to his fellow-man, neither of which require or justify, but on the contrary prohibit, any acts which are injurious to the interests of mankind. I might also add that all cruel customs relating to women have been imposed upon her under the guise of religion, and hence though so injurious and baneful to herself, she is even slower to change them than the man. There is hardly any cruel wrong which has been inflicted in the course of ages by man upon his fellow-man that has not been justified by an appeal to religion. Think of slavery having been upheld by this argument in the present century! Think of all the human sacrifices that have been offered in the name of religion! Think of women put to death as witches up to a few years ago in England, up to the present day in parts of India! Can we wonder then that a religious sanction has been given to this marriage custom, and that Bajnangarh Bannias think they are neglecting a religious duty as well as a duty towards their children in failing to marry their daughters at a premature age?

Thus far I have spoken only of the physical disadvantages of these ill-assorted marriages. There remain the moral effects of the disparity which exists in age, in health and in intellect. There is no man so strong, so self-possessed, so self-reliant, but that he is constantly in need of sympathy. Especially does he need sympathy in his own household to enable him to face his work in the world with renewed vigour of mind and body each day. In the life of Charles Darwin his son, speaking of the life of this great man as being, notwithstanding all the work he accomplished, one long struggle against the weariness and strain of sickness, adds that his wife's loving sympathy and care was the one condition which enabled him to bear the strain and fight out the struggle to the end. And in the lives of most great men you will find that they were indebted for much of their power to work to the sympathetic assistance of some woman. But how can there be communion of thought or helpful sympathy between a man in the vigour of life and intellect and a child-wife whose growth of body and mind has been stunted by marriage and whose intellect has never been trained? This is one reason why all your educated men are desirous of having an alteration in this custom, for the more a man's higher nature is called out, the more he longs for sympathy and affection. And hard as it is for a man to find no companionship in his wife, remember that any disparity in age and in tastes is still harder for the wife. Think what a life of loneliness and suppression for the little girl taken away from her parents and playmates and handed over to a man who understands her still less than she understands him. Think of her called upon at an age when she should be playing with dolls and learning from school-books to undertake the education of children of her own. And in all her troubles—troubles made so monstrously big for such a childish mind—no sympathising friend to whom to turn, no ear to listen to or comprehend her griefs; she grows up a lonely soul in that most terrible of all solitude, the solitude of a crowd. The man has his life in the world, his outside interests, his contact with other men—if his home life is not all he could wish, he throws himself more into

that outer life; but the woman—what has she to compensate for loss of sympathy, friendship, and affection? Nothing but the dull routine of petty household duties. It is much harder for her than for him.

In speaking of this custom of child-marriage and infant betrothal, it is difficult to avoid dwelling upon one inevitable and, in the eyes of modern scientific philosophers, most disastrous result issuing from it, viz., that it is a complete bar to any choice in marriage. Can it be doubted that those who marry from genuine affection for each other are likely to lead a happier life, to be more truly helpful to one another, to take more care of the children, and to exercise more affectionate solicitude for their welfare than those who have been joined together by the arrangement, generally with a view to pecuniary or social advantages, of others? And there is another more important and far-reaching consideration and that is the effect upon the children. It is a generally received opinion, arrived at by the experience afforded in countries where both systems of marriage prevail, that the children of love-marriages are of a higher type—morally, mentally, and physically—than those of marriages of social convenience only. So strongly does this belief prevail that a philosopher does not hesitate to incorporate into his system the influence upon the race of this mutual attraction between parents. Schopenhauer justifies the interest felt by the majority of people in the love episodes of the drama of the novel, and of real life. "It is no trifle," he says, "that is in question here; on the contrary, the importance of the matter is quite proportionate to the seriousness and ardour of the effort. The ultimate end of all love affairs is really more important than all other ends of human life, and is therefore quite worthy of the profound seriousness with which everyone pursues it. That which is decided by it is nothing less than the composition of the next generation. The *dramatis personæ*, who shall appear when we are withdrawn are here determined, both as regards their existence and their nature by these frivolous love affairs!" Schopenhauer is one of the many believers in the transmission of the will of the father and the intellect of the mother to the children (a theory which presents but a poor look-out for future generations under a system of child-marriage), and he holds that the mutual attraction felt by two individuals of opposite sexes for each other is due to the fact that the will of the man and the intellect of the woman are in each case specially suitable to each other. I do not hesitate to affirm that this custom of choice in marriage has been one important factor in the predominance of the Anglo-Saxon race. That the English race has improved in physique stands beyond a doubt. The fact that the ordinary Englishman cannot don the armour of 300 or 400 years ago proves it; that it has improved in intellect is shown by the wonderful strides in the diffusion of knowledge and the higher level of average literature; that it has improved morally can be gathered by a study of the statute book and by a perusal of the graphic pictures of life drawn in the novels and dramas of former times. I do not mean to assert that love marriages constitute more than one of many causes, but I do say that the general robustness of the English race, is to no small extent due to our adherence to the early tradition of our common Aryan stock, from which you have departed, viz., the right of choice in marriage. It is this freedom of choice which has given woman the better position she holds there. The Englishman is certainly not more disposed to do justice to women and to grant fair rights to the weaker than is the Hindoo. But the very fact that he has, for his own interests possibly, kept up this traditional custom, gives the woman a position of independence and moral power which she could never otherwise have attained.

And again another benefit accrues to the race from marriages of affection. Do not your ancient epics which sing of love sing also of noble deeds and acts of heroism on the part both of men and women actuated by a pure affection for each other? Alike in your dramas and in those of Shakespeare and of all great writers love is the great motive power which impels to deeds of prowess, the spring of noble actions, of unselfish devotion, of words and

thoughts which have enriched all later generations, the one sentiment which elevates marriage amongst mankind to something infinitely higher and purer than the gratification of a mere animal instinct. Tennyson thus characterizes it in one of his beautiful Idylls where his hero King Arthur says:—

"For indeed I know
Of no more subtle master under heaven
Than is the maiden passion for a maid,
Not only to keep down the base in man,
But teach high thought and amiable words,
And courtliness, and the desire of fame,
And love of truth and all that makes a man."

And you who have departed from our common tradition, how have you fared in the race of life? Are your men as brave and fearlessly truthful, are your women as courageous and honest as in the old days of "the maiden's choice"? Are the little worn-out child-wives of to-day likely to have descendants like those of the damsels of your ancient epics? Where are the deeds of high enterprise, of daring valour and of patient persistence of the youths who were fired by the pure love of a woman? Ah! gentlemen, with love life departs; there is no vitality in married life without affection, and when love, the great incentive to action, disappears from the family, leaving dry the streams of affection which should flow between the children and parents, what must become of the race? Consider carefully these things I beg of you, for of a truth I assure you that if you still persist in your present ways, if you still fight against the laws of nature, your race will degenerate more and more, so that not all the support of a paternal government can save you from decay, whilst if the cry of the pessimist should come true, and England should one day have to retire from India, you will fall an easy prey to the first comer, you will ever be hewers of wood and drawers of water to any robust race who are not like yourselves the children of children, but the progeny of healthy adult men and women.

HOW CAN A TEACHER BECOME MASTER OF HIS BUSINESS?

Every man is either master of his business or a slave to it. If a slave to it, the work is drudgery. The consciousness of mastery relieves routine of its monotony and stimulates to new effort. Mastery is to be distinguished from the mere knowledge of *technique*. Its essential quality is the power to form and to realize ideals. Mastery is attained through the combined influence of nature, studies, and experience. Nature must supply some instincts and aptitudes, but teaching is a business to be learned.

Mastery necessitates the knowledge by the teacher of six things: (1) What teaching in general is; (2) what the particular business of his school or grade is; (3) what relation his part holds to the parts above and below him; (4) the best methods; (5) the best means; (6) the material he has to work on. To know what teaching is, one must know what education is, and what the work of the school in education is. It is necessary to guard against thinking that schooling is the whole of education, and that learning is all of schooling.

To know what education is, and what teaching is, we must study a child, in process of becoming a man,—his future relations, with the consequent possibilities and needs; the influences which go to educate him outside of school, and the work of the school to co-operate with or counteract these; the sphere of the teacher in the school. What can a teacher do to help and not hinder a child in the process of becoming a perfect man? All great educational questions are to be solved in the light of this study.

In learning what his special business is, the teacher must know what a course of study is, the relation of its parts, and his own part in it; the principles of school organization, and especially the difference between elementary and scientific knowledge. In studying methods, the teacher should embrace the history of education, where philosophy teaches by example, and he should distinguish between methods and devices. The means to be studied, their use and, above, include text-books, apparatus, cabinets, recitations, reviews, examinations, marking systems, prizes.

The teacher must know the children whom he has to teach, as individuals, their peculiar qualities and peculiar needs in education; their tendencies, predilections, outside influences, physical, mental, and moral constitution. To see the individual in the mass, and to teach each while teaching all, is the mark of the master.

The special studies by which the teacher comes to know his business run along four lines,—physiology and psychology, the science and art of teaching, school organization and government, and the history of education. Wise men have been thinking and writing along these lines for centuries. By such study the teacher comes to a knowledge of principles, learns how to work and why to work so; he breaks his tether, gets outside of himself, acquires breadth, makes the acquaintance of his predecessors through the centuries, realizes that he is "heir of all the ages."

Beside this strictly professional study, the reading of biography enriches the teacher with material for professional culture. By such reading we learn that education is not schooling alone, nor learning alone, but the whole process by which one comes from the helplessness and uselessness of infancy to the stature of a perfect man, "full summed in all his powers," ready for life and all its demands. To all that nature has done, and all that he has acquired by study, the teacher must add the fruit of experience. Mastery is gained only in the schoolroom.

The urgency for the profound professional study suggested lies in the absence of definite purpose which characterizes the work of many

teachers, in the widespread criticism upon the school, in the low estimate of teachers in literature,—impaled upon the pen of every satirist,—in the frequent sacrifice of the schools to social, political, and personal interests.—GEORGE H. MARTIN, Massachusetts Board of Education, in the *Journal of Education*, (Boston).

A LOVE FOR KNOWLEDGE.

The difference between the possession of mere knowledge, and a real living love for knowledge itself, is much greater than many persons imagine; it is, indeed, the difference between the empiric and the scientist; between mere cramming and a real education. And the person who is able to impart this love for knowledge is something more than an ordinary teacher; indeed, he alone among his fellows really deserves the name. For the impartation of mere particles, mere aggregates of knowledge, is easy rule of thumb work compared with the work of imparting a real love for knowledge itself. And, indeed, the teacher must himself be full and running over with this love of knowledge. It must be the medium through which his personal magnetism, his personal influence, makes itself felt among those he has to deal with. Such men have been our really great teachers; the late Dr. Kennedy may serve as the best obvious example. It is, perhaps, too much to say that every one has in himself some love for knowledge; there is, no doubt, a minority in whom it is so choked up and smothered, that it is practically non-existent; but certainly most persons have at least some germ of it. In all, however, it is a plant that will not thrive without careful culture and cultivation; it can rarely grow up of its own unaided strength. But when it finds some one who is able to bring it out of its hiding-place and can cherish its life with his own inspiration, then we may expect it to grow apace and to produce fruit of the greatest value. For him in whom the love of knowledge is once fairly awakened it is sure to increase the sum of his knowledge; and, indeed, he will not rest in peace unless he is daily making additions which are sure to be of importance and value to him in after-life. Hence it is that schoolmasters should pay more attention to the task of inculcating a love for knowledge, than to the supposed object of gathering together a mass, more or less digested, of knowledge which may of itself be useless for all after-time. It is because this fact is too often overlooked that we have ventured to call to it the special attention of our readers.—*The Private Schoolmaster*.

TYPES OF TEACHERS.

First of all there is the Novice—there ought not to be, because in every profession save the tutorial, a man has to go through a practical apprenticeship—but still there distinctly is, at the present, the Novice. He is characterised mainly by an intense enthusiasm—it soon wears off—that fills him with a keen desire to achieve phenomenal successes, to teach as never man taught before (in this he is generally fortunate a good deal beyond his expectations and even wishes), and to exhibit the peculiar beauty of his own particular method of imparting instruction, and to replace the royal road to knowledge (which is a highway remarkably difficult to discover) by a series of pleasant short cuts across the fields. So great is his admiration for the nature of the duties he is called upon to fulfil that he troubles himself—at first—very little, indeed, about the amount of remuneration he is to receive in exchange for his services. Indeed, so deep is his sense of the dignity of teaching that he frequently accepts engagements upon what are known as “mutual terms”—which expression simply denotes, in plain English, working for nothing. This enthusiastic condition of mind does not, as we have already noted, last very long; it is more than probable that, before his first term is over, the Novice will have arrived at a less rosy tinted period of his novitiate, and—to his intimate friends, at any rate—will have confessed, in tolerably mournful numbers, that things are not what they seem.

Then there is the Matter-of-fact Teacher. He is of an intensely practical turn of mind; and, aiming only at the useful, regards the ornamental as being altogether superfluous. He is a man who would appreciate a rough diamond quite as much for the roughness as for the diamond, and who regards the niceties of educational “finish” in the light of frivolities. He will read a page of “Paradise Lost” with much the same feelings as a column of Webster’s English Dictionary, and the most pathetic of poems would produce about as much effect upon his imagination as the dates of English sovereigns from the Conquest. The dates, indeed, are stern facts of solid value, while the poetry would take him, if he were weak enough to be led, into regions of profitless fancy. Our teacher brings the same spirit of materialism, if one may so term it, into all his school-work. If his subject be Arithmetic he prefers teaching the good common-sense straight-forward “rules” of “Tare and Tret,” or “Practice,” and there is no attraction for him in anything approaching what may be termed “fancy Arithmetic.” He will view with much complacency a page of neatly worked “Tots” (or “Compound

Addition”), but in the well-known problem of the bud of Lotus and the Lake he sees little use and no beauty. His attainments, as a rule, are not of a high order; but what he knows he knows thoroughly, and what he teaches he teaches well. He is not afflicted with nerves, and the cutting of a slate-pencil with a blunt pocket-knife causes him no sensations of uneasiness.

Then we have the Theoretical Teacher. He revels in the abstract, but is a dead failure when he tries to deal with the concrete. As boys are entirely “concrete,” if we may put it so, in their every thought, word, and deed, our theoriser is not popular with them by any means. He is too fond of presenting to them ideas existing apart from any clothing of a material description, and boys lack, as a rule, the power of appreciating the reality of that which is not, in some sense of the word, *tangible*. He is fond of the lecture form of instruction; he “orates” with easy eloquence and carefully-chosen diction, but produces very meagre results. In a word, he is a man who might be of immense service to the advanced student, but who is practically useless to the bullet-headed school-boy.

Nor must we omit mention of the Sarcastic Teacher. He is fond of ridiculing, at every opportunity, the faults and follies of his small-boy audience. The small-boy, in the great majority of cases, is far too thick-headed to appreciate to their full value the shafts of sarcasm that are launched against him. At the same time he is fully aware that he is being made fun of, and is the more irritated perhaps at being unable to see where the fun comes in. The appreciation of wit is seldom found to exist among our youth: any attempt at sarcasm among themselves always takes the form—as doubtless many readers have noticed—of personalities, a most objectionable substitute for the real article. The Sarcastic Teacher usually manages to establish a wholesome dread of his tongue among the unruly members of his flock, but he very frequently does so at the expense of any popularity he would otherwise have attained. He is distrusted: his pupils suspect some hidden and sinister meaning in his most innocent observations, and he would be the last person whom, in any difficulty, they would think of taking into their confidence. The tongue is, in truth, a dangerous weapon, and one that requires, among masters more especially, to be used with considerable care.

The Muscular Master is the one, beyond all doubt, who commands from his pupils the greatest respect and enjoys the largest share of popularity. His attainments may be modest in the direction of classics, mathematics, and the ologies, but he has won for himself a magnificent reputation in the cricket close and the football field. How often have

not his vigorous performances with the bat pulled a first eleven match "out of the fire?" What terror those brawny limbs inspire among his opponents as he works the "leather" cleverly through their midst, and with what vociferous cheers are not his efforts finally rewarded. An English boy admires muscle while he (as a rule) despises brain: the Muscular Master may, in his capacity of athlete, make himself for the time being, at any rate, a demigod in the world of school. The influence thus acquired in the open air extends to his life indoors. His classes are free from disorder, his discipline is all that can be desired. It is our private opinion that a fairly well educated prize-fighter would make a far more successful schoolmaster—or at any rate *assistant* master—than a Senior Wrangler possessing little bodily strength and of a somewhat easy going and perhaps, timid disposition. Mention of the word "timid" reminds us of another type of teacher.

The Timid Teacher is indeed a pitiable object, and his path is bestrewn with very many thorns. To whatever cause his nervousness, and consequent vacillations, be due, the result is abject and dire failure. We should couple with timidity—in endeavouring to arrive at the cause of such failure—weakness of will, to which, indeed, the particular kind of timidity to which we refer may frequently be attributed. The school-boy knows at once when he is master of his teacher, and he is also perfectly well aware when his teacher is master of him. He makes unfortunately a somewhat ignoble use of his knowledge, being apt to render himself outrageously impudent or unpleasantly servile, seeing, apparently, no beauty at all in the happy mean.

A common—a far too common—type of teacher is that over-accomplished individual known as the *Bouche-trou*, or the "stop-gap." He is a veritable Jack-of-all-subjects, and master of none. He knows a little Greek and Latin; a little French, a little Mathematics, a little Natural Science; he can draw a little, paint a little, play the piano a little, and do many other things—a little. There is nothing in the whole educational curriculum that he cannot teach a *little*. In short, he is remarkable for a most complete all-round littleness, which extends, it may be remarked, to his salary. He is not an advocate of "specialisation" in the instruction of youth, knowing well that the adoption generally of such a system of education would be absolutely fatal to his own private and particular interests. He is a great stickler for a "general education," and the wider the range of subjects the better. Poor "Stop-gap!" his days are numbered; there will be no room at all for him in the schools of the not very distant future. He will have himself to "specialise," or be kept for ever in the outer darkness of neglect and oblivion.

Finally, there is the True Teacher—a man who has been trained to teach as well as taught to learn—a man whose heart is in a work undertaken of choice, not of necessity. For him the drudgery of his first teaching days (and drudgery there must be) is indeed a stepping stone to higher things. He cannot but succeed, because the one object of his desires is to excel in the profession he has chosen as a life-work, and not as a *dernier ressort*. He possesses a natural gift, and he knows it. He steps upon the lowest rung of the ladder with the determination to ultimately reach the topmost, in spite of every obstacle, and he *does* reach it. *O si sæc omnes.*—*The Private Schoolmaster.*

ART OF AUTHORSHIP.

[The following excerpts are from a volume upon "The Art of Authorship," personally contributed by leading authors of the day, and published by D. Appleton & Co., New York.]

Dinah Maria Craik: To be your natural self without affectation is the truest wisdom.

Huxley: I spare no labor upon the process of acquiring clear ideas, and to find the words which express all I mean, and no more.

Jean Ingelow: Young authors should cultivate their minds, and let their style take care of itself.

Louise Chandler Moulton: Words are a delight to me, as colors to a painter.

Julian Hawthorne: In school my "compositions" were flat and perfunctory, and were marked pretty low. I read Macaulay, De Quincey and Carlyle with benefit.

Tyndall: To think clearly is the first requisite; the next to give clear expression to the thought. A good ear, a sound judgment, and a thorough knowledge of English grammar,—all contribute.

Lowell: If I have attained to any clearness in style, I think it is partly due to my having had to lecture twenty years as a professor at Harvard.

Stedman: When one has something to say,—something he must express,—he will say it in his natural and special way; and his way forms his style, and the style is thus the man.

George MacDonald: Every true man with anything to say has a style of his own, which for its development requires only common sense.

Robert Browning: I had no other direction than my parents' taste for what was best in literature, but found for myself many forgotten fields which proved the richest of pastures.

Gen. Lew Wallace: Expression in writing, as in speaking, is the outgrowth of the feeling of the moment.

Elizabeth Stuart Phelps: My own style is the result of downright hard work.

Mark Twain (Samuel M. Clemens): One will notice as his reading goes on that the difference between the *almost right* word and the *right* word is really a large matter,—'tis the difference between the lightning-bug and the lightning.

Wilkie Collins: My day's work, having been written with such corrections as occur to me at the time, is revised next day, and handed to my copyist. This manuscript undergoes a second revision, and is then sent to the printer. The first proof is carefully corrected, as is also the second or "revise."

Richard D. Blackmore: A good deal depends upon luck as well as care, and sometimes a writer must wait, or even leave off and return to work again before he can hit upon the turn of words required.

Ernest Renan: To write well is to think well; there is no art of style distinct from the culture of the mind.

Sir Edwin Arnold: The good writer never chooses a word at hazard, or without noting its harmony in sound as well as sense with what precedes and follows.

Justin McCarthy: I took early to the great masters of English,—to Shakespeare, and all the Elizabethan dramatists, to Addison, Steele, Johnson, and Burke.

William Black: Young people who want to write good English may safely be recommended to the masters of the tongue,—Tennyson and Thackeray for choice,—and to incessant practice.

George William Curtis: The young writer should remember that bigness is not greatness, nor fury force.

Hale: I have always tried to write Saxon rather than Latin, in short words rather than long, and specially in short sentences.

George Rawlinson: Read the best authors attentively,—Bacon, Locke, Hume, Berkeley, Jeremy Taylor, and of moderns, Walter Scott, Bulwer, Thackeray, Ruskin, Froude,—and practice constantly.

Holmes: Never write except when you have something to say and then say it simply,—as Addison, Goldsmith, and Franklin wrote.

Froude: I have tried merely to express what I had to say with as much simplicity and as little affectation as I could command.

Howells: A beginner should study the raciest, strongest best spoken speech, and let the printed speech alone. Write straight from the thought, without bothering about the manner.

THE LOWER SECONDARY EXAMINATION.

NOTIFICATION.

1. An examination, to be styled the Lower Secondary examination, shall be held annually in the months of December, January, February or March, in the several branches of general and of special knowledge hereinafter mentioned.

2. The object of Government in instituting the examination is to provide a final test for lower secondary education, more especially as regards children of both sexes whose necessities compel them to cease attendance at public schools at this stage of instruction; but the examination shall serve also to test the eligibility of pupils of the Seventh Standard for results grants and the general educational qualification of teachers of the Primary Grade, Higher, and of inferior public servants desirous of passing a higher test of general education than the Primary examination, as well as the special qualifications of inferior technical teachers receiving grants under the Grant-in-Aid Code.

To whom open. 3. The examination shall be open to—

i. All pupils of the Third Form (Seventh Results Standard) of a Government or Board school for general education, or a corresponding class in any other school, Public or Private, which may be recognized by the Director of Public Instruction, provided that the pupils of schools working under Chapter III of the Code have complied with the conditions in respect to attendance prescribed in the said chapter, and that pupils of other ordinary schools have been regular in attendance from the beginning of the term in which application for admission is made, and are still on the rolls of the school at the date of the examination.

ii. All pupils belonging to Special schools or classes of suitable standard to be determined by the Director, and recognized by him as affording efficient instruction in—

- (a) Science.
- (b) Art.
- (c) Industries.
- (d) Commercial subjects.

Note.—The above restriction regarding attendance applies to such pupils also.

iii. All teachers of the Primary Grade, Lower, who may be desirous of qualifying for a higher grade, and all inferior technical teachers desirous of rederiving themselves eligible for grants as such under the provisions of the Grant-in-Aid Code.

iv. All other persons, regarded as private candidates, of any age, if in the service of Government or Local Boards, or whose age, if not so employed, at the time of examination, does not exceed 25 years.

4. The examination shall be under the control of the Commissioner for the Uncovenanted Civil Service Examinations and shall be conducted under his orders in the Compulsory and in certain of the Optional subjects by means of local Examining Committees appointed by him, one for each centre at which the examination may be held.

5. Each local Committee shall consist of a Chairman and at least two other members who shall hold office for three years from the date of their appointment, but shall be eligible for reappointment at the expiration of their term of office. The Commissioner may, at his discretion, remove any member from office without assigning any reasons. The Inspectors of Schools, the Inspectresses of Girls' Schools, and the Assistant Inspectors shall be *ex-officio* members of the Committees within their respective circles or divisions.

6. It shall be the duty of the Chairman of each Committee, with the assistance of the members, to arrange for the proper conduct and efficient supervision of the examination at his centre or centres according to such instructions as he may receive from the Commissioner. He shall also carry on all correspondence relating to the examination with the Commissioner and shall furnish such reports, statements and returns as may from time to time be called for.

7. The examination shall ordinarily be held at each centre in the same month in each year, but it shall be left to the Chairman in consultation with the members of his Committee to fix the exact dates for the examination in each District, due notice thereof being published in the District Gazette.

8. A list of centres at which the examination will be held, with the names of the members of the Committee for each District shall be published in the Fort St. George and District Gazettes in the month of August preceding the examination. Ordinarily, there shall be only one centre for each district, but if circumstances require it, one or more additional centres may be appointed on the recommendation of the Chairman of the District Committee. The examination at these additional centres shall be conducted by Sub-Committees working in conjunction with the District Committee, the Chairman of the District Committee being Chairman also of the Sub-Committee. Each Sub-Committee shall have a Vice-Chairman, who shall furnish the Chairman of the District Committee with particulars of the examination conducted by his Sub-Committee, for incorporation in the report and in the statements to be furnished by the latter at the close of the examination. For the inclusion of these additional centres in the list of centres, application should be made to the Commissioner by the local authorities concerned, through the Inspector of the Circle or the Chairman of the District Committee, in the month of July preceding the examination.

Subjects of examination. 9. The following are the subjects of the examination:

I.—COMPULSORY.

1. First language—Reading, Recitation and Grammar,—as in Schedule K-1 of the Grant-in-aid Code for Native candidates, and as in Schedule L-1 for Europeans and Eurasians.

2. Writing, Spelling and Composition,—as above.

3. Arithmetic.

II.—OPTIONAL.

1. Second language—as in Schedule K-2 of the Code for Natives, and as in L-2 for Europeans and Eurasians.

2. History of India.

3. Geography.

4. Mathematics.

5. History of Great Britain and Ireland.

6. Elementary Science.

7. Domestic Economy.

8. Needlework—

(a) Plain.

(b) Fancy.

9. Any subject included in Article 15 of the Science and Art Notification.

10. The examination in the Compulsory subjects and in the Optional subjects numbered 1—8 inclusive will be conducted by the Committees appointed under Article 4 of this Notification, in strict accordance with the requirements of the Grant-in-Aid Code, the examination being mainly a *viva voce* one. The examination in the other Optional subjects will be held in accordance with the Notification regulating the Government examinations in Science, Art, Industries and Commerce, by the Boards appointed under that Notification for the conduct of the examination.

11. A candidate may come up and pass in the Compulsory portion alone, and enter for one or more of the Optional subjects at subsequent examinations, but no candidate shall, except as provided in the Science and Art Notification, be admitted to the examination in any of the Optional subjects alone until he has passed in the Compulsory ones, and no candidate shall be considered or declared to have passed the Lower Secondary examination unless he shall have passed in the three Compulsory branches and in any three of the Optional subjects. Such candidates shall be called "Lower Secondary Passed candidates."

Classification of passed candidates. 12. Passed candidates, as defined above, shall be arranged in two classes:—

i. The first, consisting of those who have obtained not less than two-fifths of the maximum marks in each of the Compulsory subjects, one-half of the maximum marks in each of the three Optional ones, and three-fifths of the total aggregate marks for the Compulsory subjects.

ii. The second consisting of those who have obtained not less than one-fourth of the marks in Arithmetic, one-third in each of the remaining subjects,—Compulsory as well as Optional,—and one-third of the total aggregate marks for all the Compulsory subjects.

13. A candidate failing in any of the Compulsory subjects—failing, that is, to get one-fourth of the marks in Arithmetic, or one-third of the marks in each of the other subjects, shall be considered to have failed completely and must undergo examination again in all the three Compulsory subjects.

14. A candidate failing in one or more Optional subjects shall not be required to undergo examination again in any of the Compulsory subjects, but, to complete the test, is required to pass only in the Optional subjects in which he failed. Candidates completing their qualifications for a first class, Art. 12 (i), shall be classed in that class in the year in which they completed their qualifications. A candidate who brings up both Compulsory and Optional subjects at the same examination, and who fails in the former, but passes in the latter, will be allowed to count his success in the Optional subjects at a subsequent examination, when he comes up again in the Compulsory ones.

15. A "passed candidate," as defined in Art. 11, may come up again at any subsequent examination in any one or more of the Optional subjects, or in any language in which he may not have already passed.

16. As soon as possible after the results of the examination have been determined in each district, the Chairman of the Board shall furnish the Commissioner with a brief report of the examination and with the following statements:—

(1) Statement A, giving the names and other particulars of those who have passed in the three Compulsory and in at least three Optional subjects, the candidates being classified in the manner prescribed in Article 11.

(2) Statement B, giving the names and other particulars of those who have passed only in three Compulsory subjects.

(3) Statement C, giving the names and other particulars of those who have passed in the three Compulsory and in one or two Optional subjects.

(4) Statement D, giving the names and other particulars of those who came up and passed only in one or more optional subjects under Article 14. The names of the candidates who have completed the tests required for "passed" candidates shall be shown separately.

These statements shall be published by the Chairman of each Board in the District Gazette, and the Commissioner shall publish in the Fort St. George Gazette the name of the candidates in list (1) and also the names of the candidates in list (4) who have qualified as "passed" candidates.

17. Certificates, signed by the Chairman of the Board by whom the examination was conducted, shall be issued to "passed candidates" as described in Article 11. Such certificates shall be in a prescribed form, and specify the language and subjects in which the candidate passed.

18. The Managers of schools sending up pupils will receive, in accordance with the provisions of the Grant-in-aid Code, grants for each pupil as may pass the examination, provided the school is eligible for grants on their behalf under the provisions of the Code.

19. Applications for admission to the examination shall be made on or before a date not later than 75 days preceding that fixed for the examination on printed forms supplied by the Commissioner to all Government Treasurers. They shall be addressed in each district to the Chairman of the Board by whom the nominal lists will be prepared and the necessary arrangements made for the examination.

20. The following fees must be paid for admission to the examination:—

Fees.	
For admission to the Compulsory portion alone	Rs. 2 0 0
For each Optional subject brought up with the Compulsory ones	" 0 8 0
For each Optional subject brought up by itself	" 1 0 0

N.B.—In the case of subjects brought up under the Notification regulating the Government Examinations in Science, Art, Industries and Commerce, the fees levied will be those prescribed in that Notification.

21. The Commissioner, on the request of the Government of any Native State organizing examinations within its territory on the lines of this notification, may admit its schools to the benefit of this examination, provided the Government concerned agrees to bear all local charges.

22. This Notification shall take effect from the 1st January 1891, from which date the Middle School examination shall cease to be held.

J. F. PRICE,
Chief Secretary.

January 20th, 1891.

UNIVERSITY OF MADRAS.

The undermentioned Candidates have passed the B.A. DEGREE EXAMINATION (LANGUAGE BRANCH) held in November 1890.

[The passing of the Candidates whose optional language was Sanskrit, and who are marked thus* as well as their position in the pass list, will be determined by the result of the re-examination in Sanskrit Text-books and Grammar to be held on the 30th January 1891.]

Rank.	Register Number.	Name of Candidate.	Where educated.
FIRST CLASS.			
1	232	Venkatesvara Aiyar, V. Ramaswami Pottar.	Madras Christian College.
2	523	Paramu Pillai, Kesava Pillai	Maharaja's College, Trivandrum.
3	405	Siqueira, Bonaventure	St. Aloysius' College, Mangalore.
SECOND CLASS.			
1	215	Narayana Aiyar, Trichur Sankumani Aiyar.	Presidency College.
2	222	Ramun Tambi, Paramesvaran Tamhi.	Pachaiyappa's College.
3	403	Fernandes, Lawrence	St. Aloysius' College, Mangalore.
4	504	Karumakura Pisharoti, Karu Pisharattu.	Pachaiyappa's College.
5	525	Ramakrishna Aiyar, Venkatachulam.	Maharaja's College, Trivandrum.
6	*237	Chengayya, Maidavolu	Madras Christian College.
7	495	Saldanha, Jerome Antony	St. Aloysius' College, Mangalore, and St. Joseph's College, Trichinopoly.
8	365	Tyagaraja Aiyar, V. R.	Kumbakonam College.
9	*389	Sambamurti Rau, T.	Do.
10	*476	Natesa Aiyar, N. S.	St. Joseph's College, Trichinopoly.
11	569	Kesava Kuruppu, K. Paramesvara.	Maharaja's College, Trivandrum.
12	*533	Narayana Aiyar, Padmanabha Sastri.	Do. do.
13	*239	Desikachari, Pundi	Pachaiyappa's College.
14	518	Narayana Pillai, M. R.	Maharaja's College, Trivandrum.
15	*539	Rajaraja Varma Raja, M.	Do. do.
16	69	Ramanujachari, Anjur Tuppu	Presidency College.
17	*542	Ravi Varma Raja, M.	Maharaja's College, Trivandrum.
18	*269	Ramaswami Aiyar, T. S.	Pachaiyappa's College.
19	437	Narayana Aiyangar, K.	St. Joseph's College, Trichinopoly.
20	*479	Ramaswami, V. S.	Do. do.
21	498	Anantanarayana Aiyangar, Gopala Aiyangar.	Presidency College and Maharaja's College, Trivandrum.
22	56	Navaladi Ramayya, Sendamangalam Venkayya.	Madras Christian College.
23	412	Virabhadra Rau, Venka	Rajahmundry College.
24	210	Madhavan Nayar, Chingacham Vittil	Presidency College.
25	*475	Narayanawami Aiyar, R.	St. Joseph's College, Trichinopoly.
26	*253	Minakshisundaram, M. S.	Kumbakonam College and Presidency College.
27	302	Parsons, Jessie	Presidency College.
28	493	Sankaranarayanan Pillai, S.	St. Joseph's College, Trichinopoly.
29	33	Lakshmana Aiyar, Sesha	Madras Christian College.
30	*377	Krishnaswami Rau, R.	Kumbakonam College and Private Study.
31	10	Bhashyam Aiyangar, Pundi	Pachaiyappa's College.
32	127	Aiyalu Nayudu, Malepatti	Do.
33	198	Benjamin, T. Kuruvilla	Madras Christian College.
34	221	Ramachan Nedungadi, Azhuthachan Kalathil.	Presidency College.
35	300	Muhammad Hassan Ali Khan	Madras Christian College.
36	404	Paramesvara, Uthil	St. Aloysius' College, Mangalore.

Rank.	Register Number.	Name of Candidate.	Where educated.
SECOND CLASS—continued.			
37	26	Kandaswami Chetti, Ottilingam	Madras Christian College.
38	49	Muttaswami Aiyar, T. S.	Do.
39	134	Etirajulu Nayudu, Pokala	Pachaiyappa's College.
40	433	Maria Arputam Pillai, T. D.	St. Joseph's College, Trichinopoly.
41	93	Srinivasa Aiyangar, Ramanuja	Kumbakonam College and Presidency College.
42	494	Ambadi, Purari	Presidency College and Private Study.
43	*243	Hiriyanna, Mysore	Central College, Bangalore, and Madras Christian College.
44	*496	Vas, Albert Victor John	Presidency College and Private Study.
45	186	Ramaswami, Belavadi	Madras Christian College.
46	*550	Venkata Ramadas, Mandapaka	Maharaja's College, Vijayanagaram.
47	31	Krishnamachari, Nilamegham Sri	Presidency College.
48	*235	Appan Aiyangar, Tirumalaisai	Do.
49	*241	Gangadhara Somayajulu, Gollakotta.	Madras Christian College.
50	*252	Lakshminarayana, Golvadi	Presidency College.
51	428	Gopalakrishna Rau, R.	S. P. G. College, Trichinopoly.
52	203	Kannan, Kotiet Adhari	Presidency College.
53	*268	Ramaswami, N.	Do.
54	*334	Paul, Dayasila	Nizam College, Hyderabad.
55	*392	Tiruvankattann, S.	St. Peter's College, Tanjore.
56	9	Bajakrishna Aiyangar, M.	Kumbakonam College, and Private Study.
57	24	Kanakasabhapati, Salem	Madras Christian College.
58	197	Antappayi, Chereyeth, V.	Private Study.
59	5	Appaswami Aiyar, K.	St. Joseph's College, Trichinopoly, and Pachaiyappa's College.
60	133	Devarajulu Nayudu, Maljetti	Presidency College.
61	207	Krishna Aiyar, Peruvemba Kuppan Pattar.	Madras Christian College.
62	*382	Ramasosha Aiyar, P. S.	Kumbakonam College.
63	513	Madhavan Pillai, Nilakanta Pillai	Maharaja's College, Trivandrum.
64	61	Raghava Aiyar, Pallavaram	Madras Christian College.
65	*246	Krishnamachari, R.	Presidency College.
66	*251	Kuppuswami Aiyangar, Arasanipalai Venkatachari.	Madras Christian College.
67	*271	Rambhatji, Kasserode	Presidency College.
68	*272	Rangachari, Kondangi	Pachaiyappa's College.
69	*290	Sundararaja Aiyangar, K. Tirumalai.	Maharaja's College, Trivandrum, and Private Study.
70	53	Natesa Aiyar, Panchanada Aiyar	Madras Christian College.
71	58	Parthasarathi Aiyangar, Manavasi	Private Study.
72	*261	Ramachandra Aiyar, Krishna Aiyar.	Madras Christian College.
73	333	Syed Muhammad	Central College, Bangalore, and Private Study.
74	438	Narayanawami, R.	St. Joseph's College, Trichinopoly.
75	*484	Srinivasa Aiyar, R.	Do. do.
76	511	Krishna Aiyar, Padmanabha Bhagavatur.	Maharaja's College, Trivandrum.
77	164	Srinivasachari, Panappakkam	Presidency College.
78	173	Venkatanarayana, Vadapalli	Rajahmundry College and Presidency College.
79	191	Subba Rau, Buntwal	Presidency College.
80	193	Venkaturamayya, Devandahalli	Madras Christian College.
81	*240	Gandabati, Pudukotta R.	Presidency College.
82	*238	Narayanawami Aiyar, Mayaveram S.	Madras Christian College.
83	*292	Tirunarayana Aiyangar, R.	Presidency College and Private Study.
84	*394	Vaidyanathan, S.	Kumbakonam College.
85	410	Ramachandrudu, Venneti	Rajahmundry College.
86	*435	Subhaya Mudali, P.	Kumbakonam College and St. Joseph's College, Trichinopoly.

Rank.	Register Number.	Name of Candidate.	Where educated.
SECOND CLASS—continued.			
87	3	Aiyaswami, Tenkarai Annaswami Aiyar.	Madras Christian College.
	461	Swaminatha Aiyar, Annadurai	St. Joseph's College, Trichinopoly.
	89	Sivaprakasam Pillai, Kuttalalingam Pillai.	Madras Christian College.
89	180	Krishna Rau Panje	Presidency College.
	*267	Ramaswami, K.	Do.
	115	Varadarajan, Srinivasa Aiyangar	Madras Christian College.
	178	Bhimayya, Puruvanga	Do.
92	217	Philip, Parasuram Varkki	Do.
	227	Vaidyanatha Aiyar, N. Appadurai Aiyar.	Pachaiyappa's College.
	15	Ekambara Aiyar, Kadambi	Madras Christian College.
	66	Ramachandran, Tiruvudaimarudur Swaminatha.	Do.
	128	Alavandar Chetti, Chinata	Do.
	188	Srinivasa Rau, Arkal	Do.
	*218	Krishnaswami, S.	Presidency College.
96	*330	Krishna Sastri, Hoskote	Central College, Bangalore, and Private Study.
	366	Vaidyanatha Aiyar, K. (Krishnaswami Aiyar).	Kumbakonam College.
	*395	Visvanathan, Vasudeva	Madras Christian College and Kumbakonam College.
	*180	Ratnaswami, S.	St. Joseph's College, Trichinopoly.
	79	Ranga Rau, Namakkal Ramachandra.	Madras Christian College.
	83	Sambanda Mudali, Trichinopoly	Do.
	120	Venkatasubba Aiyar, S.	Private Study.
	206	Krishna Aiyar, Kalputi Padmanabha Pattar.	Madras Christian College.
105	*250	Krishnaswami Sastri, T. P.	Kumbakonam College and Presidency College.
	*282	Subha Rau, Gokern	Madras Christian College.
	*545	Bhairava Sarma, Nishtala	Do. and Maharaja's College, Vijayanagaram.
	7	Arumukham Pillai, T. A.	Madras Christian College.
	*468	Ganesa Aiyar, Subharsya	St. Joseph's College, Trichinopoly.
	63	Raghavachari, Namangalam	Madras Christian College.
112	174	Venkataswami Nayudu, Coppiseti	Do. and Presidency College.
	*275	Seshayya, Timmaneri S.	Pachaiyappa's College.
	398	Pendurika Baliga, Buntwal	St. Aloysius' College, Mangalore.
	114	Vaidisvara Aiyar, Pattapattu Ramakrishna.	Madras Christian College.
115	154	Ramakrishna, Vishnubhotla	Do.
	455	Sivaramakrishna Aiyar, A. V.	Do. and St. Joseph's College, Trichinopoly.
	492	Gnanaprakasam Pillai, V.	St. Joseph's College, Trichinopoly.
	23	Kalyanasundara Mudali, Mailapur	Madras Christian College.
	12	Dandayudapani, Mayaveram Swaminatha Aiyar.	Do.
	104	Subrahmanya, Swami Aiyar	Do.
122	112	Tulaswama Aiyangar, Lagudava Kupp.	Do.
	*284	Subrahmanya, Velliyar	Do.
	*376	Krishnaswami Aiyar, T.	St. Peter's College, Tanjore.
	*537	Nagu Pillai, R. Velu Pillai	Maharaja's College, Trivandrum.
	88	Seshagiri Rau, Nilakantapuram	Madras Christian College.
	131	Bhushayya, Madduri	Do.
	161	Sanyasayya, Adeda	Do.
129	225	Subrahmanya Aiyar, Sekharipuram Venkataraya.	Do.
	318	Nagappa, Somanatha Uliya	St. Joseph's College, Trichinopoly, and Central College, Bangalore.
	368	Venkoba Rau, Candalavadi	Kumbakonam College and Private Study.

Rank.	Register Number.	Name of Candidate.	Where educated.
SECOND CLASS—continued.			
135	*482	Sesha Aiyangar, N.	St. Joseph's College, Trichinopoly.
	82	Sambanda Mudali, Muttukrishna	Madras Christian College.
	98	Subha Rau, Pingale	Presidency College.
	179	Bhoja Rau, Pejawar	Do.
	*294	Vaidyanathan, V.	Kumbakonam College and Madras Christian College.
136	*370	Gopala Rau, R.	Kumbakonam College.
	*373	Krishna Aiyar, S.	Do.
	460	Subrahmanya, P. S.	St. Joseph's College, Trichinopoly.
	*472	Kuppuswami Sastri, C.	Do.
	47	Muhammad Ismail	Presidency College.
	59	Pattabhirama Pillai, Tirupakkuli	Madras Christian College.
	187	Siva Rau, Kabad	Presidency College.
	283	Verghese, Maman	Madras Christian College.
144	*236	Balakrishna Rau, Hattiangudi	Presidency College.
	*244	Kalyanasundaram Aiyar, Coimbatore Ramakrishna.	Pachaiyappa's College and Presidency College.
	359	Sambasivan, S.	Private Study.
	527	Rama Varma Tampan, Maruthukovil.	Maharaja's College, Trivandrum, and Private Study.
	97	Srinivasaraghavachari, Ekkadu	Madras Christian College.
	160	Rangayya, Angulyabharanam	Do.
	170	Tirumarayanaswami, Nambur	Do. and Private Study.
152	311	Anandji Rau, Madanapalli R.	Central College, Bangalore.
	348	Kodandarama Aiyar, S.	Kumbakonam College.
	441	Rama Aiyangar, K.	St. Joseph's College, Trichinopoly.
	494	Raja Atisayam, T. T.	Do.
	108	Swami Aiyar, Chetlar	Madras Christian College.
	189	Janakirama Reddi, Conjeevaram	Do.
	149	Narayanaswami, Arcot	Do.
159	168	Subha Rau, Machiraja	Do.
	314	Javariyappa, Konanore	Central College, Bangalore.
	350	Mariaswami Mudali, A.	Presidency College and Private Study.
	508	John, Alumimuttill Geevaragese	Maharaja's College, Trivandrum and Private Study.
THIRD CLASS.			
	1	Abraham Nadar, John Samuel	Madras Christian College.
	2	Adaikkalam Pillai, Duraiswami Samuel.	Do.
	339	Aiyaswami Aiyar, R.	Kumbakonam College.
	424	Alagappa Mudali, S.	Madras Christian College and S. P. G. College, Trichinopoly.
	176	Ananda Rau, Gulvadi	St. Aloysius' College, Mangalore, and Madras Christian College.
	177	Ananda Rau, Panambur	Presidency College.
	401	Andrade, Denis Alexander	St. Aloysius' College, Mangalore.
	129	Annaji Rau, Nandagiri	Presidency College.
	309	Arunachala Rau, Roddam	Central College, Bangalore.
	342	Asirvadam, D. Samuel John	St. Peter's College, Tanjore.
	*335	Bhave Purushottam Moreswar	Nizam College, Hyderabad, and Private Study.
	199	Chakko, Brahmakulatha Chakko	Madras Christian College.
	343	Chidambaram Pillai, Annamalai	Presidency College and Private Study.
	426	Chinnappa Pillai, P. C.	St. Joseph's College, Trichinopoly.
	462	Colaco, Raymond Francis	St. Aloysius' College, Mangalore.
	*546	Dakshinamurti, Duri Sambasiva	Maharaja's College, Vijayanagaram.
	132	Dakshinamurti Aiyar, Kalahasti	Madras Christian College.
	344	Daniel, Solomon	St. Peter's College, Tanjore.

Rank.	Register Number.	Name of Candidate.	Where educated.
THIRD CLASS—continued.			
	13	David, Vedamanikkam ...	Caldwell College, Tuticorin.
	501	Diraviyam, Devasirvadam...	Maharaja's College, Trivandrum.
	345	Duraiswami Aiyar, M. S. ...	Kumbakonam College and Private Study.
	301	Fredericks, Adolphus Alfred ...	Private Study.
	427	Ganesan Aiyar, Venkatarangam ...	St. Joseph's College, Trichinopoly.
	16	Gnanadikkam, Susai ...	Madras Christian College.
	502	Gopala Aiyar, P. A. ...	Maharaja's College, Trivandrum, and Private Study.
	136	Gopalachari, Kadambi ...	Madras Christian College.
	137	Gopalachari, Sriperumbudur Echambadi ...	Private Study.
	506	Govinda Pillai, Kali Pillai ...	Maharaja's College, Trivandrum, and Private Study.
	19	Gunaratnam Pillai, Jotinayakam ...	Madras Christian College.
	429	Guru Rau, Purnushottamachar ...	S. P. G. College, Trichinopoly.
	407	Hanumanta Rau, Panuganti ...	Rajahmundry College.
	507	Ittyerah, M. Eapen ...	Maharaja's College, Trivandrum.
	138	Jagannatham, Pulipaka John Henry ...	Madras Christian College.
	*372	Jayaraman, V. ...	Kumbakonam College.
	27	Kasturiranga Aiyangar, Velittirumuttam ...	Private Study.
	510	Kesava Pillai, C. Easwaran ...	Maharaja's College, Trivandrum.
	28	Koil Pillai, Davamani ...	Caldwell College, Tuticorin.
	205	Koran, Bayarot Kallan ...	Presidency College & Private Study.
	29	Krishna Aiyar, S. N. ...	Kumbakonam College, Madras Christian College, and Private Study.
	140	Krishnaswamayya, Thotapalli ...	Madras Christian College.
	141	Krishnaswamayya, Yenamandram ...	Do.
	33	Krishnaswami, Balaguru ...	Do.
	31	Krishnaswami Aiyangar, S. Ramaswami ...	St. Joseph's College, Trichinopoly, and Madras Christian College.
	35	Krishnaswami Aiyar, Calavai ...	Madras Christian College.
	*249	Krishnaswami Aiyar, R. A. ...	Kumbakonam College and Presidency College.
	*375	Krishnaswami Aiyar, S. (Sankara) ...	Do.
	36	Kumaraswami Mudali, Saidapet ...	Madras Christian College.
	37	Kuppu Rau, Bhavani ...	Do.
	143	Kuppaswami, Arcot ...	Do.
	209	Kuriyan, Punithara Pilo ...	Do.
	40	Laforch, William ...	Do.
	42	Madhava Rau, Chitrachavadi ...	Presidency College.
	249	Madhava Rau, Mekoti ...	Do. and Private Study.
	146	Madhava Rau, Patri ...	Madras Christian College.
	433	Mahalinga Aiyar, Duraiswami ...	St. Joseph's College, Trichinopoly.
	214	Makkadan, Micah ...	Madras Christian College and Private Study.
	43	Manikka Chetti, Gummadipundi ...	Do.
	44	Manikkam, Vedamanikkam ...	Caldwell College, Tuticorin.
	181	Manjanatha Baliga, Buntwal ...	Presidency College.
	514	Matthew, Chalakuzhiyil Curier ...	Maharaja's College, Trivandrum.
	515	Matthew, Geeverghese ...	Do.
	434	Mirandah, Salvador ...	St. Joseph's College, Trichinopoly.
	177	Mudaliyandan, Chetti Rottela ...	Madras Christian College and Private Study.
	305	Muhammad Abdur Rahim ...	Do.
	182	Mukunda Rau, Tonac ...	Presidency College and Madras Christian College.
	50	Muttuswami Aiyar, Viravanallur Padmanabha ...	Madras Christian College.
	*255	Nagaswami Aiyar, Muttanna ...	Do.
	52	Nagar Miran, P. N. ...	Presidency College & Private Study.
	53	Narahari Rau, Mukkoti ...	Do.

Rank.	Register Number.	Name of Candidate.	Where educated.
THIRD CLASS—continued.			
	*331	Narasimha Aiyangar, Mandayam Tondanore ...	Central College, Bangalore, and Private Study.
	*378	Narasimhaachari, G. G. ...	St. Peter's College, Tanjore, and Private Study.
	*256	Narasimhaachari, Gonaatam Gunja ...	Presidency College and Madras Christian College.
	436	Narasimham, T. S. ...	St. Peter's College, Tanjore.
	*416	Narasimham, Varanasi ...	Rajahmundry College.
	183	Narasinga Rau, Hattikudur ...	Madras Christian College and Private Study.
	*471	Narayana Aiyar, C. S. ...	St. Joseph's College, Trichinopoly.
	*257	Narayana Menon, Vellat ...	Madras Christian College.
	138	Narayana murti, Durbha ...	Presidency College & Private Study.
	*259	Natesu Aiyar, Sendangudi S. ...	Madras Christian College.
	520	Padmanabha Aiyar, Janardana ...	Maharaja's College, Trivandrum, and Private Study.
	303	Parsons, Phebe Florence ...	Presidency College.
	523	Perumal Pillai, P. Kunnara Pillai ...	Maharaja's College, Trivandrum.
	*417	Prakasani, Aiyaguri ...	Rajahmundry College and Private Study.
	*260	Raghavachari, Vanamamalai ...	Presidency College.
	61	Raghavendra Rau, Sama ...	Pachaiyappa's College.
	*261	Rajagopala Aiyangar, Carichengal ...	Madras Christian College.
	65	Rajagopala Aiyangar, Sikkilnaya kampet Sesha ...	Do.
	152	Rajagopalachari, Madur Comandur ...	Do.
	*262	Rajagopala Rau, Gade ...	Presidency College & Private Study.
	218	Rama Aiyar, Kalpati Krishna Pattar ...	Pachaiyappa's College.
	219	Rama Aiyar, Mathur Sivarama Pattar ...	Do.
	142	Ramachandra Aiyar, G. ...	St. Joseph's College, Trichinopoly.
	185	Ramachandra Kamthi, Mangalore ...	Presidency College.
	*381	Ramachandran, G. ...	Kumbakonam College.
	67	Ramakrishna Aiyar, Pannimadai Krishna Aiyar ...	Presidency College.
	*547	Ramakrishnamraju, Alluri ...	Maharaja's College, Virayanagar.
	156	Ramanna, Vempati ...	Madras Christian College.
	*266	Ramanujachari, Conjeevaram Naddur ...	Do. and Pachaiyappa's College.
	155	Ramanuja Rau, Vavilikolanu ...	Private Study.
	310	Rama Rau, Nagalamadaka ...	Central College, Bangalore.
	157	Rama Rau, Nandagiri ...	Madras Christian College.
	409	Rama Rau, Nayampalli ...	Do. and Private Study.
	70	Rama Rau, R. ...	Presidency College.
	71	Ramaswami, Vutta ...	Madras Christian College.
	72	Ramaswami Aiyangar, S. (Srinivasa) ...	Kumbakonam College and Presidency College.
	73	Ramaswami Aiyar, Aiyar Aiyar ...	Presidency College & Private Study.
	446	Ramaswami Aiyar, Harihara Aiyar ...	St. Joseph's College, Trichinopoly.
	355	Ramaswami Aiyar, M. ...	Kumbakonam College.
	356	Ramaswami Aiyar, Periyakottai Nagu Aiyar ...	St. Joseph's College, Trichinopoly, and Private Study.
	75	Ramaswami Pillai, Sundaram Pillai ...	Caldwell College, Tuticorin, and Madras Christian College.
	76	Rangachari, Kadambi ...	Pachaiyappa's College.
	77	Ranganatha Mudali, C. G. ...	Madras Christian College.
	78	Ranganatha Mudali, Tiruvur ...	Do.
	159	Rangaswami Aiyangar, Perungutur Vankipuram ...	Do.
	80	Rangaswami Aiyangar, Savel S. ...	Presidency College.
	448	Rangaswami Aiyar, L. R. ...	St. Joseph's College, Trichinopoly.
	*320	Ranoji Rau, Bombani Santuram ...	Central College, Bangalore.
	81	Ratnasa bhapati Mudali, Pondicherry ...	Madras Christian College.

Rank.	Register Number.	Name of Candidate.	Where educated.
THIRD CLASS—continued.			
	*273	Salvapati Rau, Marakani	Madras Christian College.
	*481	Sambamurti, S.	St. Joseph's College, Trichinopoly.
	85	Samuel, Satyanathan	Madras Christian College.
	322	Sanjiva Chetti, Kunnattur	Central College, Bangalore.
	86	Sankaranarayana Pillai, N.	Madras Christian College and Pachaiyappa's College.
	528	Sankaran Valiathan, V. Govindan	Maharaja's College, Trivandrum.
	*336	Sankara Rau, Anigondi	Nizam College, Hyderabad.
	497	Santappan, M.	St. Joseph's College, Trichinopoly.
	449	Sargunam Nadaraj, J. R.	St. Peter's College, Tanjore, and Private Study.
	*274	Sarvottama, Kamaad	Madras Christian College.
	450	Satakopa Aiyangar, R.	St. Joseph's College, Trichinopoly.
	451	Satakopa Aiyangar, V. T.	S. P. G. College, Trichinopoly.
	*387	Satakopachari, A.	St. Peter's College, Tanjore.
	452	Sesha Aiyangar, G.	Private Study.
	323	Setu Rau, Mysore	Central College, Bangalore, and Private Study.
	455	Sivasankha Aiyar, R.	Private Study.
	*418	Sonayajulu, Caza Purushottama	Rajahmundry College.
	456	Srinivasa, Mary Ann	Private Study.
	808	Srinivasa Aiyangar, Kadattur	Central College, Bangalore.
	92	Srinivasa Aiyangar, Madaravasal	Madras Christian College.
	*542	Srinivasa Aiyangar, S.	Maharaja's College, Trivandrum, and Private Study.
	324	Srinivasa Aiyangar, Sakrayapatna	Central College, Bangalore, and Private Study.
	453	Srinivasa Aiyangar, Sesha	S. P. G. College, Trichinopoly.
	94	Srinivasa Aiyangar, Vangal Tiruvankata.	Private Study.
	95	Srinivasa Aiyar, Tiruvalur S.	Madras Christian College.
	338	Srinivasa Aiyar, T. V.	Kumbakonam College.
	96	Srinivasachari, Srirangam Viraraghava.	Madras Christian College.
	509	Srinivasan, M. K.	St. Joseph's College, Trichinopoly, and Private Study.
	*323	Srinivasan, N. P.	Kumbakonam College.
	*279	Srinivasan, Tiruvenkatattu Aiyangar.	Do. and Madras Christian College.
	165	Srinivasa Rau, Cankur	Presidency College & Private Study.
	529	Stephanos, George	Maharaja's College, Trivandrum, and Private Study.
	*281	Subharaman, Paramakudi Venkatachalam.	Madras Christian College.
	190	Subha Rau, Bapa	Do.
	223	Subha Rau, Harihara	Do.
	167	Subharau, Rauga	Presidency College.
	99	Subha Rau, Sendamangalam Ramachandra.	Madras Christian College and Private Study.
	101	Subharayar, Kangayam Rama Aiyar.	Do.
	531	Subramanya Aiyar, N. Gopala Sastri.	Maharaja's College, Trivandrum.
	103	Subrahmanya Aiyar, Sattur S.	Madras Christian College and Presidency College.
	105	Subrahmanyan, Cuddalore	St. Joseph's College, Trichinopoly, and Madras Christian College.
	*480	Subrahmanyan, V. S.	St. Joseph's College, Trichinopoly.
	*286	Subrahmanya Sastri, Kotamraju	Madras Christian College and Private Study.
	192	Subrahmanya Sastri, Tiramakudlu.	Do.
	168	Subrahmanyan, Kalpat	Do.
	*548	Suryanarayana, Nishtala	Maharaja's College, Vijayanagaram.

Rank.	Register Number.	Name of Candidate.	Where educated.
THIRD CLASS—continued.			
	109	Swaminatha Aiyar, C. V.	Kumbakonam College and Presidency College.
	111	Tiruvenkatachari, Pundi Chettur	Pachaiyappa's College.
	334	Ummamen, Kumbakanda	Maharaja's College, Trivandrum, and Private Study.
	463	Vaidyanatha Aiyar, K.	St. Joseph's College, Trichinopoly.
	*393	Vaidyanathan, G. S.	St. Peter's College, Tanjore.
	535	Varghese, P. Chandi	Maharaja's College, Trivandrum.
	*295	Vasudeva Aiyar, Aiyar Aiyar	Madras Christian College.
	326	Venkanna, Ajjampur	Central College, Bangalore, and Private Study.
	*549	Venkanna, Jayanti	Private Study.
	229	Venkappa Aiyar, Manappattam Ganapati Aiyar.	Do.
	231	Venkatachala Aiyar, Nochur Ramaswami Pattar.	Madras Christian College.
	171	Venkatachari, Conjeeveram Pagalativatti.	Pachaiyappa's College.
	118	Venkatachari, Madurantakam Buchi.	Do.
	*296	Venkatachari, Srinivasa	Madras Christian College.
	*172	Venkatakrishnama Nayudu, Pasupuleti.	Pachaiyappa's College.
	*420	Venkataramayana Rau, Aripirala	Rajahmundry College.
	*439	Venkatarama Aiyar, A. R.	Kumbakonam College and St. Joseph's College, Trichinopoly.
	316	Krishnappa, Harisave	Central College, Bangalore.
	461	Venkataramana Aiyar, Rasipur Varada.	St. Joseph's College, Trichinopoly.
	*298	Venkataramanan, D.	Presidency College.
	*121	Venkataramanayya, Bhattiprolu	Rajahmundry College and Private Study.
	327	Venkataramanayya, Hole Narsipur.	Central College, Bangalore, and Private Study.
	*299	Venkataramachari, T. V.	Presidency College.
	234	Viraraghava Aiyar, Kavasseri Paramesvara.	Pachaiyappa's College.
	*601	Visvanatha Aiyar, V.	St. Joseph's College, Trichinopoly.
	369	Visvanathan, M. S.	Kumbakonam College.
	165	Vyasa Rau, Sengamedu S.	S. P. G. College, Trichinopoly.
	126	Ycsadiyan, David	Madras Christian College.

(By order.)

SENATE HOUSE, 26th December 1890.

W. H. WILSON, Ph.D.,
Registrar.

HIGHER EXAMINATIONS IN SCIENCE, ART, INDUSTRIES AND COMMERCE—OCTOBER 1890.

The following Candidates are declared to have passed the HIGHER EXAMINATIONS IN SCIENCE, ART, INDUSTRIES AND COMMERCE held in October 1890:—

Number in Order of Merit.	Register Num- ber.	Name of Candidate.	Where educated.	Marks obtained.
------------------------------	-----------------------	--------------------	-----------------	--------------------

SYLLABUS No. 70—BUSINESS CORRESPONDENCE AND TRANSACTIONS.

FIRST CLASS. Max 200.

1	34	K. Vaidianathaswami Aiyar ...	Teachers' College, Saidapet ...	134
2	37	S. V. Ramaswami Aiyangar ...	Do. do. ...	129
3	73	Anthur Gopala Ramaswami Aiyar.	Private Study ...	127
4	33	V. Sundaram Aiyar ...	Teachers' College, Saidapet ...	124
5	36	Nagar Ananda Rau ...	Do. do. ...	120

SECOND CLASS.

1	14	Chettipuniam Govinda Chari ...	Chengalvaroya Naicker's Com- mercial and Technical High School, Madras ...	113
2	65	N. S. Subramania Aiyar ...	Private Study ...	113
3	83	K. D. Subramania Aiyar ...	Do. ...	113
4	74	Swamiadiyan Guanamaniyam ...	Do. ...	108
5	35	K. Dharmaraja Aiyar ...	Teachers' College, Saidapet ...	105
6	52	Chavali Kotogi ...	A. E. L. Mission College, Gun- tur. ...	104
7	38	T. N. Annaswami Aiyar ...	Teachers' College, Saidapet ...	91
8	70	Taiyur Jambulinga Mudali ...	Private Study ...	90

THIRD CLASS.

50	Govindaraju Krishnayya ...	A. E. L. Mission College, Gun- tur. ...	80
66	A. Krishnaswami Aiyar ...	Private Study ...	77
4	Kambakonam Krishnamachari.	Chengalvaroya Naicker's Com- mercial and Technical High School, Madras. ...	72
17	Tiruvanniyur S. Krishnaswami Aiyar.	Do. do. ...	70
39	Conjeeveram Raghava Chari ...	Teachers' College, Saidapet ...	77
78	N. Seshu Aiyar ...	Private Study ...	70
67	Sanagapalli Venkata Bashiam Chetti.	Do. ...	75

SYLLABUS No. 67—BOOK-KEEPING.

FIRST CLASS.

1	31	J. Percy Whitehead Berry ...	Bishop Corrie's Grammar School Madras. ...	129
2	34	K. Vaidianathaswami Aiyar ...	Teachers' College, Saidapet ...	129
3	37	S. V. Ramaswami Aiyangar ...	Do. do. ...	125

Number in Order of Merit.	Register Num- ber.	Name of Candidate.	Where educated.	Marks obtained.
------------------------------	-----------------------	--------------------	-----------------	--------------------

SYLLABUS No. 67—BOOK-KEEPING.—(continued).

SECOND CLASS.

Max 200.

1	36	Nagar Ananda Rau ...	Teachers' College, Saidapet ...	116
2	76	Tanjore S. Ramaswami Pillai...	Private Study ...	115
3	33	V. Sundaram Aiyar ...	Teachers' College, Saidapet ...	96
4	74	Swamiadiyan Guanamaniyam.	Private Study ...	96
5	27	Pichi Kandaswami Chetti ...	Bishop Corrie's Grammar School, Madras. ...	94
6	7	Ramanujakutam Thiruvengada- thanayya.	Chengalvaroya Naicker's Com- mercial and Technical High School, Madras. ...	92
7	73	Anthur Gopala Ramaswami Ai- yar.	Private Study ...	91
8	38	T. N. Annaswami Aiyar ...	Teachers' College, Saidapet ...	90
	59	Savapathi Manavalayya Nayudu.	Private Study ...	90

THIRD CLASS.

56	Purasai Chengalvaroya Pattar...	Private Study ...	76
35	K. Dharmaraja Aiyar ...	Teachers' College, Saidapet ...	87
14	Chettipuniam Govinda Chari...	Chengalvaroya Naicker's Com- mercial and Technical High School, Madras. ...	70
26	Hamidulla ...	Bishop Corrie's Grammar School, Madras. ...	74
40	Taiyur Jambulinga Mudali ...	Private Study ...	71
8	Trichinopoly Kripasanker Taw- ker.	Chengalvaroya Naicker's Com- mercial and Technical High School, Madras. ...	82
25	Mailapur Krishnaswami Chetti.	Bishop Corrie's Grammar School, Madras. ...	74
50	Govindaraju Krishnayya ...	A. E. L. Mission College Gun- tur. ...	76
11	Tiruvadi S. Narayan Sastri ...	Chengalvaroya Naicker's Com- mercial and Technical High School, Madras. ...	71
9	Puthandalam Parthasarathi Pil- lai.	Do. do. ...	75
12	Chithalla B. Swami Chetti ...	Do. do. ...	84
41	V. M. Saminatha Aiyar ...	Teachers' College, Saidapet ...	87
44	Tirumalaisai Sunthalanga Mudali	Do. do. ...	74
71	T. S. Seshu Aiyar ...	Private Study ...	86
78	N. Seshu Aiyar ...	Do. ...	84
79	V. Srinivasa Aiyar ...	Do. ...	75
82	R. Sundaram Aiyar ...	Do. ...	70
83	K. D. Subramania Aiyar ...	Do. ...	81
67	Sanagapalli Venkata Bashiam Chetti.	Do. ...	88

SYLLABUS No. 71—BANKING WITH POLITICAL ECONOMY.

FIRST CLASS.

Max 100.

1	36	Nagar Ananda Rau ...	Teachers' College, Saidapet ...	74
2	37	S. V. Ramaswami Aiyangar ...	Do. do. ...	69
3	35	K. Dharmaraja Aiyar ...	Do. do. ...	66
4	34	K. Vaidianathaswami Aiyar ...	Do. do. ...	63
5	33	V. Sundaram Aiyar ...	Do. do. ...	60

SECOND CLASS.

1	38	T. N. Annaswami Aiyar ...	Teachers' College, Saidapet ...	55
---	----	---------------------------	---------------------------------	----

(By order.)

Office of the Comr. for the U. C. S. Examinations,
Madras, 6th January 1891.

F. H. ELLIOT,
Secretary.

GAZETTE NOTIFICATION.

Fort St George, January 14, 1891.

Major A. W. Smart, Executive Engineer, First Grade, sub *pro tem*, to act as Principal, College of Engineering, during the absence of Captain Love on other duty, or until further orders.

List of Subscriptions received by the Superintendent, L. A. Press, Madras, on account of the "Journal of Education," from 27th December 1890 to 31st January 1891.

	RS.	A.
J. Cook, Esq., M.A., Bangalore	for 1890...	9 0
President, Taluk Board, Nellore	do.	4 8
Rev. C. Cooper, Madras	do.	4 8
Head Master, Board Middle School, Vridachellum, by President, Taluk Board, Vridachellum, from March 1890 to Feb. 1891	4 8	
President, Taluk Board, Tinnevely	from Aug. 1890 to July 1891	5 8
Head Master, Board Middle School, Tirur	from Nov. 1890 to Oct. 1891	4 8
President, Taluk Board, North Arcot Chittoor, from Oct. 1890 to Sept. 1891	4 8	
N. V. Balakrishnama, Berhampore	for 1891	4 8
Maung Mon, Esq., Mandalay	do.	4 8
Principal, Maharajah's College, Vizianagram	do.	4 8
Principal, St. Aloysius' College, Mangalore	do.	4 8
Head Master, S. P. G. High School, Nandyal	do.	4 8
Rev. Paul Rottari, Palamcottah	do.	4 8
Rev. Father Rector, Trichinopoly	do.	4 8
Rev. C. Petite, Wellington	do.	4 8
Head Master, Boys' Boarding Middle School, Surandai	do.	4 8
Secretary, Students' Library Association, Coimbatore	do.	4 8
E. Keyworth, Esq., Palamcottah	do.	4 8
Rev. J. W. Foley, Madras	do.	4 8
D. Lazarus, Esq., Vizagapatam	do.	4 8
Rev. W. Lutzé, Basel German Mission, Kaiti, Nilgiris	do.	4 8
Rev. H. Schaffter, Tinnevely	do.	4 8
P. Suvisashamutho Nadar, Sasthapattam	do.	4 8
Rev. M. Victors, Trevandrum	do.	4 8
Rev. L. J. Frohnmeyer, Tellicherry	do.	4 8
T. Lakshminarasimha Rao, Bangalore	do.	4 8
Head Master, L. E. School, Majer	do.	4 8
Principal, A. Narraiasawmy Mudaliar, Institution, Bangalore	do.	4 8
K. Venkata Row, Trevandrum	Jan. to June 1891	2 8
Mrs. M. Boon, Madras	do.	2 8
President, Taluk Board, Nandyal	for 1891	4 8
Principal, St. Joseph's College, Cuddalore	do.	4 8
Head Master, Hindoo High School, Tirupati	do.	4 8
H. J. P. Saidanha, Esq., Virarajendrapet	do.	4 8
Rev. A. Boyer, Bangalore	do.	4 8
Manager of the Mission Boarding School, Chembalar, Mahé	do.	4 8
C. Subba Row, Esq., Mysore	do.	4 8

Rupees... 168 0

The

Journal of Education

Madras

Vol. V.]

MARCH 1891.

[No. 3.]

THE NEW EDUCATIONAL RULES.

For the last fourteen or fifteen years Government Colleges and Schools, as well as those managed by Municipalities or Local Fund Boards, have been worked under a set of rules called Standing Orders of the Educational Department, the chief portions of which will be found in the *Madras Educational Calendar and Directory* for 1890-91, pp. 264—311. In G.O., dated 20th November 1889, a Committee consisting of twelve leading Educationists and one Civilian (Mr. H. W. Bliss, C.I.E.) was appointed to revise these *Standing Orders*. As the result of their prolonged deliberations the *Fort St. George Gazette* of February 10th contains eleven pages of Rules and Regulations and 28 pages of Appendixes, containing lists of Chemical and Physical Science Apparatus, Gymnastic Apparatus considered suitable for different grades of schools, Standards of examinations for all classes of schools, and Forms of registers of the various kinds laid down in the rules.

Nearly one-fourth of this issue of our Journal is taken up with the Rules. The various appendixes will be printed for the Supplement to the *Madras Educational Calendar and Directory*, but we do not purpose reproducing them in the Journal itself.

We shall now proceed to remark upon the new Rules, and to show their probable effects upon education. It will be observed that the Rules came into force "with effect from the date of their

publication." We are doubtful as to this being advisable as it leads to certain complications which none but practical men understand, and we conceive that the preamble to the Rules was not drawn up by the Committee. Had the Rules been issued in November last there would have been no particular difficulty in bringing them into force when Institutions re-opened in January; but suddenly to make alterations of all kinds in the middle of a Term cannot but lead, as we have said, to complications. Section I. of the Rules deals with *Classification*. Under (b) University Education (Professional Colleges) we find the College of Agriculture. At present the Madras University does not confer Degrees in Agriculture, though we hope the day is not far distant when it will see its way to instituting Degrees in this all-important Branch of human learning.

There is nothing particularly startling till we come to Rule 9 of this Section. Here the class-nomenclature has been entirely altered, and a new class inserted between the old Upper Fourth and the old Fifth Class. The classes are henceforth to be called Forms, and are to be in

Upper Secondary or High Schools.	Lower Secondary or Middle Schools.
Sixth Form (old VIth Class)	Third Form (old Upper IVth Class)
Fifth Form (old Vth Class)	Second Form (old Lower IVth Class)
Fourth Form (New Class)	First Form (old Third Class)

It will be necessary, we learn on the best authority, for all "Public Institutions" (defined in Rule 1) to adopt this classification at once, and, even though their classes have been already formed for the year, to reconstitute the classes in the High School so as to have three instead of two classes in it. As regards the fee to be charged in the new Fourth Form it should be the same as that at present charged in the Fifth Form (old Vth Class). The Fee Notification does not provide for this new class, as of course it could not do, but our readers may regard our statement as to the fee they should charge as authoritative.

Section II. (Rules 10-30) deals with the "Conditions of Recognition" under the headings of (i) Staff; (ii) Accommodation and Sanitation; (iii) Admission of Pupils; (iv) Inter-School Rules; (v) Registers, &c.

These "Conditions of Recognition" constitute the most important part of the Rules we are considering, and for this main

reason—that, with a few necessary verbal alterations, the Committee of the Senate appointed on 4th February 1889 to consider the whole question of the Matriculation Examination propose to adopt them *en bloc*, and to introduce them into the University Bye-laws as Bye-law 272. In its report to the Senate the Committee says, "the Conditions of Recognition (before candidates can be admitted to the Matriculation Examination), are substantially those drawn up by the Committee appointed by Government to revise the Departmental Standing Orders."

The result of the Educational Department and the University thus combining to enforce on High Schools a set of carefully prepared rules, the strict observance of which will be required in the case of every school which sends up pupils for a departmental Examination or for the Matriculation Examination of the University will be to speedily extinguish all schools conducted on the free-lance principle.

The "Adventure Schools" (so called) are, with a few exceptions, doing incalculable injury to education, and we cannot but look forward hopefully to the future, when a state of things will be brought about making it possible for well-equipped and well-conducted schools to fill its forms with youths all of whom are qualified to study in the form to which they belong. The "Adventure" schools have compelled many otherwise well-conducted public schools to admit boys into classes for which they could hardly be considered fit. This "immoral" conduct will no doubt speedily cease, and the morale of our High Schools be greatly improved in the course of a year or two.

We have carefully studied the *Rules of Recognition*, and consider them on the whole well adapted to secure the objects the Government have in view, (1) the strengthening and the improvement of the Educational staff, and the consequent raising of the standard of the education imparted; (2) the securing to pupils healthy surroundings, and improved furniture, apparatus, and appliances; (3) the preventing pupils attending institutions without the full knowledge and consent of their parents or guardians, which we know from long experience to be a very necessary rule; (4) the prevention of pupils leaving schools, and getting into other recognised schools, without having paid all dues to their former schools; and (5) the keeping certain Registers as proof of compliance with Government Regulations, such as the Grant-in-Aid Code, the Fee Notification, and

these Rules themselves. Section III (Special Conditions for Aided Colleges and Schools) needs no comments. Rule 37 in this section lays down six regulations on the subject of the behaviour of students in and out of school and college hours. We think these regulations should have had a separate heading as they can hardly be considered "conditions," the non-compliance with which will cause an institution to be struck off the list of those recognised. Section IV contains no fewer than 14 sub-sections which take up nearly 5 of the 11 pages of the Gazette devoted to these Rules. It is headed, somewhat inappropriately, "Hints and Suggestions on the Management of Schools." This Section (by Rule 1, in Section V. is binding on "every institution maintained by the Department or by Local Fund and Municipal Boards."

It deals with the following subjects; (i) *Time-tables*; (ii) *Distribution of the Teaching Staff*; (iii) *Course of Instruction*; (iv) *Subjects of Instruction*, in which are given Hints as to the mode of teaching English, English Reading, Recitation of English Poetry, Recitation of Vernacular Poetry, Vernacular Grammar, Writing, Spelling, Arithmetic, use of the Vernacular, use of the Black Board, Drawing, Map-drawing and the Kindergarten Method of Instruction; (v.) *Home Work*; (vi.) *Admission of New Pupils*; (vii.) *Promotion of Pupils*; (viii.) *Leave to Pupils*; (ix.) *Holidays and Vacations*; (x.) *Physical Training*; (xi.) *Moral Training*; (xii.) *Furniture and Apparatus*; (xiii.) *School Libraries*; (xiv.) *Condition of the School House and its Surroundings*.

We may express a hope that all or nearly all aided schools will do their best to carry out the Hints and Suggestions, which are not however absolutely binding on them. No doubt the Inspecting Agency will remark on any shortcomings under this Section, and Schools which make no efforts to come up to these 'Counsels of Perfection' will run the risk of losing their status.

We come, lastly, to Section V. which formed, we understand, no part of the Committee's recommendations to Government, but are a set of Rules to be observed in all institutions under public management, and were framed, we presume, by the Director of Public Instruction himself. This Section contains thirteen Rules, and in the 1st Rule we find that the "Hints and Suggestions" of Section IV shall be binding as Rules in all Government, Municipal and Local Fund Board Institutions.

Rule 2 is a new and somewhat startling one,—"*Dress*. Every Professor and Graduate-teacher in a College or Upper Secondary School shall wear his University gown within the precincts of the institution during the hours of study." We hear that this Rule is much disapproved of by some educational officers, but for our part we think one in defence of which a great deal may be said. It will, we think, tend to give more tone to colleges, and to impress the minds of the young with a certain sense of the dignity of the Professor's office. One objection is that to wear a University gown makes a person very hot, and the burden of the heat is already quite enough to bear. In the very hot weather colleges are closed, so that there is not in our opinion much in this objection to the Rule. If there are any Professors who possess extremely gorgeous robes, which may be supposed to attract an undue amount of attention, it will, we suppose, be possible for such to wear a gown of some lower degree they may have taken and to keep their butterfly robes for State occasions. Rule (3) deals with the *General Staff*; (4) with the *Curricula*; (5) *the Strength of classes*; (6) *Fees*; (7) with *Registers*. Here we stop to remark that in addition to the four Registers prescribed in Sections II, v., Rule 30, four additional Registers are to be kept. Rule 8 of Section V. deals with *Apparatus and Appliances*, (9) with *Gymnastic Apparatus*; (10) with *Examinations*; (11) with *Vacations and Holidays*, of which lists are given; (12) with *Punishments*; and (13) with the *Use of Buildings*.

We have taken up much space in this review of the Rules and must reserve any remarks we have to make on the appendices for a future issue.

NEW FELLOWS.

In the Fort St. George Gazette February 20th. H. L. M. The Governor in Council is pleased to "nominate certain gentlemen to be Fellows of the University" of Madras. No doubt arises as to whether these gentlemen are Fellows until the further process of appointing them such has been gone through. The list of the new Fellows comprises eight names—all those of gentlemen who have done or are doing the State good service. Mr. Sundaram Pillai, M.A., the only native gentleman nominated, is, we learn on enquiry, a man of some originality, and has done much to improve the Vernaculars

in the state of Travancore. While we have not a word to say against any of the "nominations" we think that undue attention has been paid to the Faculty of Engineering, as we observe that of the eight new Fellows four are Engineers (Col. Pennycuik, Major Smart, Mr. West, and Mr. Stoney), one is a Barrister (Mr. Wedderburn), one a High Court Judge (the Hon. Mr. Justice Wilkinson), and two represent Arts (Mr. Stone, and Mr. Sundaram Pillai). We much regret to find the names of Mr. C. Nagojee Row, B.A., Mr. N. Subramanien, Barrister-at-law, and those of others mentioned by us in a previous article conspicuous by their absence. Mr. N. Subramanien, as a representative of the Native Christian community would, in our opinion, be a great acquisition to the Senate. It is not yet too late to gazette a few additional Fellows before Convocation, and we hope this will be done.

OUR FIRST LADY B.A.'S.

We are very glad to learn that Miss Phebe and Miss Parsons, the daughters of Mr. D. Parsons, have both passed the final Examination for the Degree of B.A. There have already been ladies who have taken Degrees in Medicine, but the Misses Parsons are the two first to take Degrees in Arts. They received all their early training under Miss Keely at the Doveton Girls' School, but after passing the Higher Examination for Women from that Institution, they had to leave as there was then no Matriculation class in which they could study. They then joined Mr. George Maddox's Morning class, and passed their Matriculation from it. They next entered the Doveton College and were under Mr. Barrow in the F.A. classes of that Institution for 3 and 2 years respectively. In 1888 they went up and passed together for the F.A. Examination, and then entered the Presidency College, from which they have now both passed both branches of the B.A. Examination and will appear before his Excellency the Chancellor of the University as persons "duly qualified to receive the Degree of Bachelors of Arts."

We offer our heartiest congratulations to these young ladies and to their parents, and trust that they will both have bright and happy futures. Considering the backward state of the education of women we hope that special encouragement will be held out to them both to enter the service of Government in the Educational Departments.

56

WHAT SHALL OUR CHILDREN READ?

This is the important subject that has lately been discussed in some of the American Educational Magazines. A few hints and suggestions on it will, we are sure, be helpful to the readers of our Journal.

A child's reading is a vital element in his education and hence it is of the utmost importance that parents and teachers should take an intelligent interest in what the children read and help to cultivate in them a taste for good books. Carlyle has somewhere said that "the true university in these days is a collection of books." The remark is as applicable to children as it is to adults. There are certain principles that should be kept in view in the cultivation of reading habits in children. In the first place a child's reading should partake of variety. This is just what is lacking in the reading of an Indian school-boy or a school-girl. Of course the lack of good and varied vernacular literature is the chief drawback. We introduce our young pupils in schools to geography, history, and even science and literature, but they have no reading of their own to supplement and illumine these studies. This is what an American Educational journal says:—

Even before he learns to read he should have plenty of good pictures, and his imagination should be kindled by folk stories, myths, and fables. A few of the great names in history should, at this period, become familiar to him. Tales of noble deeds, wonderful inventions and discoveries, find eager listeners. Choice fiction and poetry read to the child direct his thinking and fashion his taste; when able to read he will find constant delight in works of travel, adventure, biography, and natural history. While his school life and the varied experiences of childhood tend to an all-sided development, his reading will take him to the great world outside of himself, and give tone and color to his intellectual life.

Secondly, there should be progression in reading. Those who are engaged in India in the production of juvenile literature should bear specially this in mind. Above all it is necessary that the children should read what is morally wholesome. "Ever give the child what is pure and elevating in literature, sympathize with him in his youthful appreciation of it, discuss its merits with him, and so lead him unconsciously to be a just critic."

The children should also have access to juvenile illustrated journals. The excellent publications of Rao Bahadur Krishnama Chariar intended for girls are highly appreciated by parents and teachers, and *Progress*, the publication of the Religious Tract Society, finds its way to the hands of thousands of boys; but still there is need for other journals after the type of the *Boys' Own Magazine*, *Girls' Own Magazine*, Harper's and Chamber's publications, &c. Is it not possible for the School-Book Society to undertake anything in this line?

MR. WELLDON ON 'CRAMMING' AND 'SPECIALISATION.'

It is to be lamented that Mr. Welldon should seem to lend the high authority of his name to countenance in the slightest degree the evil of "cram." According to this educationist "cramming is not necessarily bad teaching, but it is rapid teaching, and rapid teaching cannot be the best." Now it would be as well at the outset that there should be no misunderstanding as to what is generally understood by "cramming." It would seem that Mr. Welldon uses the term as synonymous with 'individualism' or 'specialisation' and he further suggests that professional crammers have been successful because they "have subordinated system to individual cases, while the schools have subordinated individual cases to system." Used in this special sense little exception can be taken to the term; for it is a well-known fact that many of the so-called cramming establishments in England have the services of some of the ablest teachers to be found in the country. These latter make it their special object to find out the peculiar weaknesses of the pupils, and then by close and individual attention they bring on their subjects with a rapidity which those only who have acted in the capacity of private tutors can fully account for and appreciate. Doubtless in isolated cases where the time is short and the pupil's knowledge limited, 'cram' pure and simple is resorted to. It is then an unmitigated evil in spite of Mr. Welldon's facile description. For what is the meaning which generally attaches to 'cram'? Is it not the accumulation of facts without assimilation? Is it not the exclusive exercise of the faculty of memory with no appeal to the independent judgment, no incitation to mental activity? How can

57

that be called teaching or education which converts the pupil into a passive receptacle of dry facts, instead of into an active one of fructifying germs? In the same way that the health of a man depends not on what he eats but on what he digests, so the intellectual activity and development of the mind depend not on the accumulation, but on the assimilation of knowledge.

'Cramming' then in the true sense of the word is not 'specialisation'; nor is Mr. Welldon's further statement that "specialisation is the greatest educational discovery of the present day" any but the merest trifling with words. It is nothing but to give to an old and well-established fact a high sounding name and then designate it as a discovery; just as some people ignorantly suppose that Lord Bacon was the discoverer of Inductive Reasoning and therefore of the system on which Scientific Research is based. What Lord Bacon did for Inductive Reasoning by giving it a prominence it had never before enjoyed, that some educationists of to-day are doing for 'specialisation.' Special prominence has of late naturally been given to this principle because, under existing circumstances, provision other than that of the schools has been found necessary to meet the requirements of the ever-increasing number of examinations. But to call specialisation the educational discovery of the present age is to ignore what Locke (to go no further back in the history of educational theories) says, that "there are perhaps no two children who can be brought up by exactly the same methods." The fact is that, in thus lightly preferring a charge against advanced class teaching, Mr. Welldon has overlooked one or two obvious facts. Class teaching can never be entirely dispensed with even in the case of those pupils who have learned what Mr. Welldon calls the fundamental or primary subjects. It is not given to all parents to provide special instruction for their children; and with small classes and good teaching the need should scarcely be necessary. In the higher classes of a school the opportunity for individual attention increases with the necessity. It is the essence of good class teaching always to take the individual into account. But good teaching, for reasons which have been already discussed in this journal, is not the order of the day. When Teachers shall themselves have learnt, and a long-suffering public at last demand, that extraordinary qualifications must be forthcoming for the teacher's office, then the need for speciali-

sation in the sense used by Mr. Welldon will be minimised. What are those qualifications? They are a thorough training super-added to a good education, daily preparation on the part of the teacher, an omnipresent and sympathetic eye to anticipate lethargy and disorder—to quicken and encourage, an intimate knowledge of the idiosyncracies of the pupils, the ability to incite and develop the intellectual faculties, and above all a love for the work which shall shine out in every word and action. So much for the teacher. A word, now, for those who direct the examinations of the country. They must bring down their iron heel on the rampant vice of 'cram'—they must make a general proscription of the 'text' books which serve as food for the giant evil—they must prescribe the subject to be taught and not the books, and never a loophole must they leave for the victims of 'cram' to appear in the successful lists. Then and then only will 'cramming' be swept from the face of the earth.

In India we must be specially vigilant to uproot the evil which has taken so strong a hold on the people. Everything depends upon it. An American author has written words so applicable to the people of this country on this subject that I cannot refrain from quoting them. "Excess in memorising produces a permanent effect in the character of the pupil, giving him a tendency to follow routine and to conform to custom, rendering him obedient to authority, and in extreme cases, superstitious of precedent and utterly lacking in originality." Wonderful words these because so true and so strangely applicable to India. Unfortunately the language of the people lends itself to the accentuation of the evil. All the more need then that we adapt our education to the exigencies of the case.

THE LAW OF COPYRIGHT IN SELECTIONS.

AN IMPORTANT JUDGMENT.

MACMILLAN AND OTHERS versus SURESH CHANDRA DEV.

This was a suit brought to restrain an alleged infringement of the plaintiffs' copyright. The plaintiffs are the proprietors under the Act 5 and 6 Vict. c. 45 of the "Golden Treasury of Songs and Lyrics." This book contains a selection of poems made by Professor Palgrave and is divided into four parts or books, the pieces in each book being

arranged in gradations of feeling or subject. The plaintiffs complain that the defendant has infringed their copyright by the publication of a book called "Select Short Poems, Part X, with copious notes, criticisms, and question papers, prescribed for the B.A. Examination of the Calcutta University for the year 1890, and for the first B.A. Examination of the Bombay University." The defendant's selection of poems is the same as that in the plaintiffs' Fourth Book, and there can be no doubt that it was taken from the plaintiffs', for it purports to contain the poems set for the University examination, and the poems the University had prescribed were those in the Fourth Book of the "Golden Treasury." Some of the plaintiffs' titles for poems have also been taken, and a good many of their notes, some with acknowledgment, some without.

The arrangement of the defendant's book is totally different from that of the plaintiffs'. The defendant has in two or three places made long insertions, and he has made a few variations in the text. In many cases he has differences of reading, and in many more of punctuation.

The main point in the case is this:—

Is the defendant's book a piracy of the plaintiffs'?

Had it rested on the notes alone, I should not have answered that question in the affirmative, for the defendant has collected a large mass of information from various sources, among which are a few of the plaintiffs' notes. But as to the plaintiffs' selection, that the defendant has taken. The question whether there is a copyright in a selection has never been actually decided, but on principle, and on other cases, I think it does exist, and that the selection is protected. Take the words of Hall, V. C., in *Hogg v. Scott*, 18 Egat p. 458. "The true principle in all these cases is that the defendant is not at liberty to use or avail himself of the labour which the plaintiff has been at for the purpose of producing his work,—that is, in fact, merely to take away the result of another man's labour, or, in other words, his property." The principle has been applied to maps, road-books, guide-books, dictionaries, and other similar publications. Such a selection as Palgrave's requires careful reading and the exercise of taste and judgment, and by taking the selection the defendant has offended against the principle. It is open to any one who pleases to go through a course of reading, and make a selection independently, but not otherwise. This was laid down by Lord Eldon in *Longman v. Winchester*, 16 Vesey, 269, and again in the later case of *Spiers v. Brown*, 6 W. R., 352. I am of opinion that such a selection as this is the subject of copyright, and that the defendant has infringed it.

Some other technical points were raised. One of these was that the edition on which the plaintiffs were suing for the infringement was that of 1882, and that only the first edition and such parts of subsequent

editions as were taken from the first were alone protected. But it is reasonable to suppose that successive issues of such a book are substantially the same.

Another point raised was that the registration was bad. This contention is opposed to the decision of *Weldon v. Dicks*, which I follow.

The fact that the defendant's book was published before the plaintiffs' was registered is of no importance, as the registration does not create the copyright, which exists already, but is merely a condition precedent to suing.

There will be perpetual injunction against the publication and sale of the defendant's book as being an infringement of the plaintiffs' book, with costs.

8th August 1890.

(Signed) A. WILSON.

NEWS AND NOTES.

LOCAL AND INDIAN.

The Municipal Girls' School, Erode, is to be constituted a Government Salary Results School.

An Inspection Code is, we hear, under preparation for inspecting officers in the Madras Presidency.

Induelka, the Malayalam novel by O. Chander Menon, has been translated into English by W. Dumergue, Esq., C. S.

The son-in-law of the Rajah of Tipperah was a candidate at the last Entrance Examination held at the Dacca College.

The Arts School, Calcutta, is to be removed to a more central part of the town, so as to be accessible to all classes of people.

It was resolved by the Senate of the Madras University at a meeting held on Thursday, 26th February, to appoint a full-time Registrar.

The Secretary of State for India has granted a personal allowance of Rs. 250 per mensem to Mr. H. B. Grigg, the Director of Public Instruction.

59

The Secretary of State has sanctioned the extension of Dr. Hultzsch's appointment as Government Epigraphist for a further period of three years, on an increased salary of Rs. 500 per mensem rising to Rs. 650.

Mr. Thamotharam Pillai, B.A., B.L., the well-known Tamil scholar, is now on a visit to Ceylon, engaged in the collection of old Tamil manuscripts which he intends to edit for publication.

The ceremony of opening the new school-house of the L. F. High School, Dharapuram, was performed on the evening of the 13th February 1891, under the auspices of J. Sturrock, Esq., Collector and District Board President, Coimbatore.

We have much pleasure in congratulating Mr. J. C. Fernandez, B.A., B.L., Vakil, High Court, on his having passed the examination for the degree of Master of Laws. He is the first among the Europeans and Eurasians in this Presidency to pass this examination.

We regret to learn that the excellent Middle School at Peruvemba, Malabar District, has been closed. The opening of new schools in the neighbourhood has given it its death-blow. We hope that the new *Educational Rules* will do much to prevent such collapses of good and well-conducted schools.

Mr. W. S. Gantz, in his reply to His Excellency The Governor on the occasion of the address presented by the Eurasian and Anglo-Indian Association of Madras, referred to the necessity for Eurasian parents getting their children taught the vernaculars. He suggested that the Educational Department should make it a *sine qua non* that the vernacular should be made compulsory in Eurasian schools.

Government has allowed Dr. E. Thurston, the Superintendent, Central Museum, to join the Indian Marine Survey Steamer "Investigator" for carrying on dredging investigations off the North East coast of the Presidency. During his absence Mr. E. W. Middlemast, Professor of Mathematics in the College of Engineering, will be in charge of the Museum and conduct the routine work.

Mrs. Brander, in a paper read on behalf of the National Indian Association in London, extracts from which will appear in a later issue, refers in the following terms to the efforts made in the Madras

Presidency to supply wholesome literature for girls and provide industrial occupation:—

"Another sign and means of progress is the provision of good vernacular literature for girls. Formerly the Tamil and Telugu books placed in their hands were usually translations from the Sanskrit, and were unsuitable and unattractive. The teachers themselves confessed that they could not read them without a dictionary. Of late years a most important and useful step has been taken, by the publication, in Tamil and Telugu, of illustrated magazines for girls. The most successful is the *Maharāni*. It is well illustrated with coloured pictures, and with patterns of needle work and drawing, and the letterpress is very good and attractive. Several of my Hindu girl friends are enthusiastic readers of the *Maharāni*. Another direction in which some progress has been made is in supplying the poorer women of the Hindu and Mussulman communities with a means of livelihood, by training them in industrial and technical work. The Missions do something towards this by teaching lace-making and embroidery, but it seems very desirable that much more should be done in this direction than has hitherto been attempted. It cannot, however, be done without funds, and hitherto these have not been forthcoming. Government gives aid for Industrial Schools, but the conditions are somewhat difficult to comply with, and funds must already exist before Government will give grants."

LITERARY AND GENERAL.

"A man is fit to teach," said the famous Dr. Arnold, "only as long as he is himself learning daily."

We regret to have to record the death of Professor John Casey, LL.D., F.R.S., F.R.U.I., a distinguished Dublin mathematician, whose textbooks have attained a wide popularity.

The Headmasters who met the other day in conference at Oxford were very nearly equally divided on the question of asking the Universities of Oxford and Cambridge to insist no longer on requiring Greek from all students.

According to Professor Max Müller, the number of roots in the English Language has dwindled to 461, while the total number of words has risen to 250,000.

The German Emperor has awarded the Gold Medal for Science to Professor Ernst Curtius, the venerable archaeologist and historian. He is the Secretary of the Prussian Academy of Sciences.

France claims 2,300,000 square miles of the latest carving up of Africa; Great Britain, 1,909,000; Germany, 1,030,000; Portugal, 775,000. What is left to the Africans does not appear.

A paper has been signed by 407 German University professors declaring that the education now given in high-schools affords a poor foundation for scientific and medical studies.—*The Teacher*.

The original manuscript of Mrs. Hemm's "The Landing of the Pilgrims" is in Pilgrim Hall, Plymouth. This was presented to the library by James T. Fields.—*Journal of Education*, Boston.

The fifty largest libraries in Germany possess 12,700,000 volumes, against those of England with about 6,450,000, and of North America with about 6,110,000 volumes.—*Id.*

In Munich University a new Oriental Society has been started, the object of which is the furtherance of Oriental knowledge of every description: language, history, geography, and even commerce.—*Journal of Education*, London.

The Minister of Education in Germany has issued orders that teachers in high schools who wish also to be *Privatdocenten* must obtain, through their director, permission from the Royal Provincial School Council.—*Id.*

Those who wish to be supplied with the *American Educational Review* will be glad to know that the English publishers are Kegan Paul & Co. and the subscription 12s. a year. The editor is Dr. Nicholas Murray Butler, of New York.—*Id.*

The school list of last half shows that Eton College is in a most flourishing condition, numbering nearly 1000 boys. Among the boys are Prince Alexander of Teck, the Marquess of Bowmont, the Earl of Guilford, twenty-two lords, fifty "honourables," and five "sirs."

A painful sensation has been caused among the middle-aged graduates in London by the untimely death (apparently by his own hand) of

Mr. William Lant Carpenter, B.A., B.Sc., which took place on December 24th. Mr. Carpenter was the eldest son of the late Dr. W. B. Carpenter, C.B., F.R.S., many years Registrar of the University.

The nearest living relative of the poet Shakespeare is probably Thomas Hart, a resident of Australia, who is eighth in descent from Shakespeare's sister Joan. There are said to be no direct descendants of Napoleon, Wellington, Washington, or Walter Scott.—*Journal of Education*, Boston.

George Bancroft, the venerable author, died at his home in Washington, after an illness of only two days, at the age of 90. This removes the last literary man of the company among whom Cooper, Bryant, Irving, Prescott, and Ticknor were leaders. He published the first volume of his "History of the United States" in 1837, and the last of the last revision in 1889. Although not great as a historian he has done his country good service in a literary and historic way, and his departure removes one of our most distinguished aged citizens.—*Id.*

A memorial brass with the following inscription has been placed in the galilee of Uppingham Chapel. Round the brass is a border of Provençal roses, Mr. Thring's favourite flower.

In grateful remembrance of
EDWARD TRING,
Whose writings animated the art,
And whose life enriched the work of teaching,
A few English and American teachers erected this tablet.
"Honour the work, the work will honour you."—E. TRING.

We welcome with the new year, says our London namesake, the appearance of a new Kindergarten journal, *Child Life*, published by George Philip & Son. The wrapper, with its quaint illustration of a child's garden, is attractive, and so is the table of contents—three action songs by John Taylor; "Justice in the Kindergarten" by Miss Manning; "Blackboard Drawing" by Mrs. Rowland Hill; and the beginning of a fairy tale. Three translated articles may seem rather a large proportion, but *antiquam exquirite matrem* is a rule too much neglected in England.

Every child entering a public primary school in France must be provided with a testimonial of birth (a copy of an entry in the civil roll), and a certificate of vaccination signed by a well reputed physician, which states that the child has been repeatedly vaccinated and is not

suffering at the time from any contagious or infectious disease. When the child has completed its tenth year the school physician vaccinates it again. There is an official physician for every school district, who watches over the hygiene of the school children, makes weekly rounds through the schools, and is called in cases of emergency.—*The Teacher*.

According to Mr. James Sully, Girls' High Schools are the best schools in the world, but they are detestable. "I very much doubt," he says in a paper addressed to the College of Preceptors, "whether, if the results of our newest and undoubtedly our best schools were tested, it would be found that those who had been put through their mental drill carried away from it any impulse towards learning. We pile up class on class and subject on subject, till we lose touch with the individual child, and cannot trouble ourselves with the question whether he keeps up or not—we have to trust to the examiner to tell us this."

Messrs. Macmillan have issued the two parts of Sir John Lubbock's "The Pleasures of Life," bound up in one volume. Part I., which contained the famous list of one hundred best books, was first published in June, 1887, since which time more than 70,000 copies have been sold. It is interesting to learn that Sir John Lubbock has been induced to make only two changes in his original list, two plays—Kalidasa's "Sakuntala" and Schiller's "Wilhelm Tell"—taking the place of Lucretius and Miss Austen. Part II. has been no less successful, more than half as many copies having been called for in less than half the time.

In the German Universities there are at present 28,711 matriculated students. Of these, 5,494 are students of theology (1,221 Catholic, 4,273 Protestant), 7,263 of law, 8,776 of medicine, and 7,178 of the philosophical faculty (which includes natural science, philology, classics, history, and mathematics, as well as philosophy proper). Berlin has 5,527, Bonn 1,219, Breslau 1,246, Erlangen 1,054, Freiburg 931, Giessen 549, Göttingen 890, Greisswald 773, Halle 1,595, Heidelberg 970, Jena 604, Leipzig 3,458, Marburg 855, Munich 3,382, Münster 385, Rostock 371, Strassburg 947, Tübingen 1,250, Würzburg 1,544. *Journal of Education*, London.

The advocates of shorthand appear to be making efforts which may possibly end in a change in our literary character. At the last meeting of the Shorthand Society there were present the Secretary of the Education Department and a couple of Inspectors, and it is rumoured that

an idea is afloat of making it part of the national education. A correspondent of the *Athenæum* tells of a Grammar School which had recently thirty shorthand pupils to one learning Greek, while it is now about to start a class in type-writing. If all the growing youths are to be educated thus, it is clear that the calling of reporter stands a chance of being flooded, and the gentleman who takes in journalistic pupils may find himself superseded by the schoolmaster.—*Globe*.

A high school of quite a new kind has been established in Genoa. The school, which on account of its strictly scientific character must be considered as belonging to the University, has for its aim the education of travellers who wish to visit foreign countries, and, contrary to the custom of flying visitors, desire to gain a lasting good from the money they expended in travelling. In order to enable the student to gain a thorough knowledge of foreign countries, the subjects of instruction comprise topography, meteorology, geography (physical and political), ethnography and anthropology, palæontology, zoology, comparative anatomy, botany, medicine, and practical hygiene, geology and mineralogy, and finally the practical study of photography. For the sake of the cause, the instruction is gratuitous, with the exception of a 20 francs entrance fee.—*Journal of Education London*.

The following queries and answers are from the *Journal of Education* (Boston).

Should a pupil be held responsible for his actions while in a fit of anger?

No, but he should be held responsible for being in a fit of anger. He must be dealt with judiciously. It may be a mere trick.

What is the Socratic method of teaching?—NOT A SOCRATES.

It is the conversational method on a scientific basis. It is the highest art of questioning for developing thought and forming judgement.

Is the Swedish system of calisthenics adapted to country school work?

Yes, specially adapted. It is a system with a principle, applied by philosophical methods, and is usable anywhere, by any teacher who will take a little time to learn how to teach it.

During the present year a movement has been set on foot by a number of ladies in Baltimore to raise the sum of £50,000, which is to be offered to the trustees of the John Hopkins University, as a contribution to the endowment of its medical department, on the condition that this department shall be open to women on the same terms and conditions as to men; and it is very probable that the money will be

obtained. Several years ago a similar offer, although for a much smaller sum, was made to the governors of Harvard University, but was declined. The *Hospital* has reason to believe that within the next five years similar offers will be made to two or three others of the oldest, largest, and best known medical schools in the United States, and it is probable that these offers are made, and that they will also be considered, very largely from the business point of view.

Dr. W. R. Harper's plan for the organization of the University of Chicago, as approved by the trustees, is the most comprehensive ever adopted by any institution of learning. It may be said to combine the democracy of the University of London and the conservatism of that of Oxford or Cambridge. The *Inter-Ocean* says: "Nothing that London has done for the popularizing of education in the physical sciences or in modern languages is to be left undone by the new University of the West, while the conservative influences of the Latin and Greek classics are likely to be cherished as warmly by the shores of Lake Michigan as on the banks of the Cam or the Isis. Whether the student has in view a full course in any of the departments of law, medicine, engineering, music, pedagogy, the sciences, literature, or the human arts, or whether he purposes to attend but a few classes in one of these, the instruction imparted will be thorough and the examinations rigid."—*Journal of Education*, Boston.

Owing mainly to the changes made by the Government in the regulations concerning Evening Classes, the number of pupils in the classes conducted by the School Board for London has very largely increased this session, there having been upwards of 20,000 enrolled during the first term, which ended at Christmas. The second term commenced on Monday, January 5th, in every district of the metropolis, and the schools in which they meet are described on posters affixed to every Board school. The subjects of instruction are numerous, including languages, science, drawing, practical cookery, bookkeeping, grammar, shorthand, and needlework, together with reading, writing, and arithmetic, which are taught in all schools. Special classes for instruction in science subjects in connexion with the Science and Art Department have also been opened. Under the auspices of the Recreative Evening Schools Association, the lantern is used to illustrate some of the subjects of instruction, and musical drill and other forms of physical exercise are practised. Considering the advantages they offer, the classes should attract an increasing number of pupils.—*The Educational Times*.

Mr. Quick, in a lecture on Herbert Spencer's "Education," formulates his charges against the heresiarch, and gives his readers the sound advice to test them at their leisure by the book itself. We will give them categorically: 1. "Education," in many ways, especially in the order of the chapters, countenances the vulgar error that the gist of education lies in giving knowledge, and not in developing the powers. 2. In defining what knowledge is of most worth, it is assumed that the knowledge of most worth to the *man* ought to be given to the child. 3. There is a further confusion between the value of knowledge to the individual for complete living, and the value of knowledge for the service of the community. As a fact, there can be no knowledge generally of most worth, because the needs of the community are many, and can be supplied only by different individuals cultivating different departments of knowledge and skill. 4. In his glorification of science, Mr. Spencer falls into two distinct mistakes: (a) He attributes success to a knowledge of theory in cases where success depends far more on practical skill; (b) In the name of science he advances beyond the domain of science, declares religion to be impossible, and treats of art as if it were a branch of applied science.

A very curious number is 142,857, which, multiplied by 1, 2, 3, 4, 5, or 6, gives the figures in the same order, beginning at a different point, but if multiplied by 7 gives all 9's. Multiplied by 1 it equals 142,857, multiplied by 2 equals 285,714, multiplied by 3 equals 428,571, multiplied by 4 equals 571,428, multiplied by 5 equals 714,285, multiplied by 6 equals 857,142, multiplied by 7 equals 999,999. Multiply 142,857 by 8 and you have 1,142,856. Then add the first figure to the last, and you have 142,857, the original number, the figures exactly the same as at the start. Another mathematical wonder is the following: It is discovered that the multiplication of 987,654,321 by 45 gives 44,444,444,445. Reversing the order of the digits and multiplying 123,456,789 by 45, we get a result equally curious—5,555,555,505. If we take 123,456,789, as the multiplicand, and interchanging the figures of 45, take 54 as the multiplier, we get 6,666,666,606. Returning to the multiplicand 987,654,321, and taking 54 as the multiplier again, we get 53,333,333,334—all 3s except the first and last figures, which together read 54—the multiplier. Taking the same multiplicand and 27, the half of 54, as the multiplier, we get a product of 26,666,666,667, all 6s except the first and last figures, which together read 27, the multiplier. Now, interchanging the order of the figures 27 and using 72 as the multiplier and 987,654,321 as the multiplicand, we get a product of 71,111,111,112—all

63

1's except the first and last figures, which read together 72, the multiplier.—*Journal of Education*, London.

The Teachers' Registration Bills which are before the House of Commons have made a very important advance. On the 26th ult., Sir R. Temple intimated his wish that his Bill should be referred to a Select Committee, and Mr. W. H. Smith replied that there was no objection to so referring both the Bill of the honourable member for Evesham (Sir R. Temple) and that of the honourable member for Rotherham (Mr. Arthur Acland). Accordingly, on the following day Sir R. Temple moved the second reading of the Bill, explaining that there was an understanding that this and another measure of a corresponding character should be referred to a Select Committee. The Bill was then read a second time, and, on the motion of Sir R. Temple, it was agreed that it should be referred to a Select Committee. The course adopted is, we think, the best course that could be taken, seeing that there are two Bills for the same end before the House at the same time. In all probability, the Committee will indicate the lines on which a practicable Registration Bill can be framed, and the Government will then pledge themselves to act on the report, and to bring in a Bill for the desired object. We know that some of the members who are most keenly in favour of the measure are of opinion that the subject is far too large and important for a private Bill, and with this opinion we quite agree. Moreover, we regard the reference of the two Bills to the Select Committee as a happy solution of the controversy respecting them, and an important step in the direction of registration and organization.—*The Educational Times*.

The following is from the *Educational Times*:—

"To grow knowledge is becoming a common phrase with experts in education when setting forth the chief aims which schools should keep steadily before them. Probably many of those who hear the phrase—perhaps some of those who use it—do not completely realize all that the phrase is meant to imply. To most of us, in an ordinary way, it is difficult to continually keep all the contents of a general idea vividly and effectively present; and so psychologists and experience point out to us that it is a good thing from time to time to go over again and revise our general notions, so as to keep them clear and distinct. Now, what do we mean by the *growing* of knowledge? It is, of course, a metaphor taken from the garden or the farm. Knowledge is to be grown as a plant is grown. All that the mind needs for its increase, development, life, is to be placed within its reach. It will take up the material of knowledge into itself, will assimilate it, and will work it up into new forms of life. Its life, indeed, will largely consist in the transformation of material, and by this exercise of its functions its powers as a whole will develop and be strengthened. Its quantity of material will increase, and its power to work up that material into

new forms will become more varied and more effective. But the plant does not take up and assimilate *all* the material with which it comes in contact. It chooses what it really needs, and just so much as it needs, and it does this just when it needs to do so. In the manner the mind is to be aided in taking in the kind of knowledge it needs, just so much of it as it needs, and just when it needs this knowledge. And it is to work up this knowledge into its very self, and to use it as its means of life. It is not to be urged to take in knowledge of which at the time it can make no kind of use. By giving the plant the wrong material, and at the wrong time, we may injure it—we may even destroy it. And just so, unless we know the needs of the growing mind, and the nature of its growth, we may do it serious injury—interfering with or stopping its continuous advance, or rendering it one-sided and ill-proportioned, or making it untimely fruitful and then sterile by premature stimulation and hurry."

Professor Earle's latest work, *English Prose—its Elements History and Usage* is both a monument recording the history and achievements of English prose, and a perfect example of the art which uses it with charm of style and lucidity of exposition and argument. If "he who drives fat oxen needs himself be fat," the requirement is here fulfilled to the letter, and better specimens of good prose than are here furnished from Professor Earle's pen can hardly be found. The work exemplifies the highest grade of the art which is thus described in the last paragraph of the last chapter, entitled "The Pen of a Ready Writer":—"We see in Prose an art from which no aspirant is excluded, to which rather all men, in the degree of their intercourse with others, are attracted and invited; an art that creates no profession apart, but identifies itself with every man's business, or taste, or pursuit; an art which admits every gradation of culture, and in its highest grade excludes ostentation, because (beyond all other arts) it verifies the crowning quality of art, hiding its own perfection in the great simplicity of nature." The thirteen chapters deal in succession with the following subjects:—

The choice of Expression.—The selection of vocabulary is more important in English than in any other language. In all nations it is necessary for a writer to learn to appreciate the various colours and shades of words, but in our nation it is most necessary. It is not enough for him to know the dictionary definition of a word, he must feel the difference there is between it and other words that might have a similar definition, he must perceive the effect it will have in each grouping of context; he must know its taste and savour. "To write English well, a man must be completely in touch with the English vocabulary. And this is not to be gained at once; no course of discipline that can be prescribed will give it to him promptly; he gets it from experience of literature and of life: hearing, reading, writing." All that a book, even such a well-

furnished treatise as this, can do, is to give hints, to quicken the faculties of observation and discrimination. To this end, the first chapter points out that the bulk of the English vocabulary has been deposited in three successive strata—(1) Saxon, (2) Romance, (3) Latin. This is illustrated by a threefold table of synonyms, extending to nearly thirty pages. The second chapter deals in a masterly manner with the import of grammar. It opens with a statement which will receive ready assent from teachers: "The most universal medium of education, next after the three R's, is Grammar." After justifying this assertion, the chapter takes up "The Nature of Words," "Structural Usage—(a) The Phrase, (b) The Clause, (c) Sentences, (d) Paragraphs," and concludes with the Logical Analysis of Sentences—its usefulness as an educational instrument, and the relation it bears to prose diction. Forty pages are devoted to the bearings of Philology in its four branches, Phonetics, Form-lore, Etymology, and Sematology, and a hundred pages to the leading characteristics of prose diction. The whole is a positive treasure-house of interesting and useful revelations respecting the ancestry of words, and of illustrative quotations revealing their precise meanings. Then follow chapters on Idiom, Euphony, Style, "the History of English Prose to the first, to the second, and to the third culmination." The book should be in the hands of every Schoolmaster.

REVIEWS AND NOTICES OF BOOKS.

ELEMENTARY MECHANICS, STAGE I. By J. C. HORSBIN, B.A. London, George Bell & Sons, 1891.

This is a clearly written book, containing a good deal of matter usually classed as Physics rather than Mechanics. The style is easy and the experiments simple and convincing. It is worth the attention of the University in connection with the Matriculation examination.

EUCLID'S ELEMENTS OF GEOMETRY, VOL. I., BOOKS I.—IV. By SARADARANJAN RAY, M.A. 3rd Edition. Calcutta, Sangal & Co., 1890.

ALGEBRA MADE EASY. By KALI PADA BASU, M.A. 2 Vols. Calcutta, the Sakha Press, 1890.

ARITHMETIC. By JADAV CHANDA CHAKRAVARTI, M.A. 2nd Edition. Calcutta, Sangal & Co., 1890.

These three works are favourable specimens of Text-Books produced by Native Graduates and Professors of Bengal. They appear to be largely used in that Presidency, and are well adapted for Class

work. They naturally do not profess any originality, but exhibit clearness of arrangement, simplicity of expression and ample supplies of illustrative examples. They seem to indicate that Elementary Mathematics receive more intelligent attention in the North than in this Presidency. The printing and get up is commendable and the binding good.

PHYSIQUE: A JOURNAL OF PHYSICAL EDUCATION,—Domestic, School and Personal Hygiene, Gymnastics, Athletics, Games and Sports. London, George Bell and Sons, York Street, Covent Garden, W. C. Annual Subscription, 6s. 6d.

We have been favoured by the Publishers with the first issue of *Physique: a Journal of Physical Education* and are glad to be able to recommend it strongly to all heads of schools. We hope it will find a wide circulation in India and especially in this Presidency where so much attention is now being given to Physical education. The Editor states his object to be "to provide a high-class journal which will deal with physical education in all its aspects, from nursery and kindergarten games to field sports, and serve as a medium of communication between students and teachers of all classes, but more especially between medical men and schoolmasters and mistresses, on questions relating to the cultivation and perfecting of all the physical faculties of the human body." We have marked several items as likely to prove of interest to our readers. In this issue we give the first instalment from *Physique* of an address by Dr. Carter on, "The claims and limitations of Physical Education in School."

A MANUAL OF PLAIN NEEDLE-WORK AND CUTTING-OUT. By the late EMILY JONES. Longmans, Green and Co., London and New York.

This is the title of an excellent little book which for the most part will be extremely useful to teachers and others. But while it contains rules which, if adhered to, cannot fail to achieve the object the writer had in view, i.e., "that by its aid a most valuable part of a woman's education may be so simply and effectually taught that the girls of the present may be fitted to become the thrifty, helpful, happy wives and mothers of the future," there are one or two defects which may be those of the present system of teaching needle-work. These we will notice further on. The authoress reminds us that garments are indispensable, but unhappily she quotes Carlyle to force this on our notice. If the so-called "Sage of Chelsea," so universally admired by his own countrymen, had been as noted for neatness in dress and good breeding, as he was for the

antithesis of all this, his remarks on the subject of dress might be of some value.

To mention some of the defects. On page 31, in the instructions for fastening off work, the authoress tells us to "break off the cotton short, picking out if necessary two or three stitches so as to leave one end the length of a child's thumb-nail," and so on. In the good old days of our grandmothers we were strictly enjoined *not to break our cotton, nor to bite it off* but to *cut it*, which obviates the necessity of "picking out two or three stitches" and consequent loss of time. A pair of small work-scissors is an indispensable item of every skilful needle-woman's work-box, bag, or basket; and as cutlery is now far cheaper than in the last century it would, we presume, be easy to see that each girl is provided with a small pair for cutting off her cotton. In work like darning, it is impossible, (we speak from experience), to execute such work neatly, unaided by scissors. "Breaking off the cotton" would be fatal to all chances of showing a neat darn. The remark about teaching "every stitch with the proper materials" might be laid to heart and acted on by heads of girls' schools aided by Government in this country. In one of these we were shown bits of canvas darned over with various coloured wools by the girls in the more advanced classes to represent "diaper darning," but these girls had not practised on the "proper material," i.e., linen or cotton table-cloths and napkins! Nevertheless this school received great kudos for its needlework from an inspecting officer who had but a superficial knowledge of such matters.

The lessons on the making of a proper button-hole are admirable, as are also the chapters on cutting-out and darning and knitting. Taking it all in all we find this a most useful book, and far above the misleading works, of the kind published in this country, that profess to teach needle-work and are written by women who, to judge by their books, are evidently themselves in need of instruction in the first rudiments of needle-work.

A TREATISE ON ELEMENTARY ALGEBRA AND ALGEBRAICAL ARTIFICES, in two volumes, by SARADARANJAN RAY, M.A., Professor of Mathematics, Metropolitan Institution, Calcutta.

We have been favoured with both the volumes of the above treatise. Before we proceed to review the work, we shall state what appears to us to be the only standard by which all new publications should be judged. That standard is the one suggested by considerations as to whether the new works that appear before the public on various subjects supply any real want, and whether they can lay claim to any originality with regard to the Author's method of handling the subjects

they treat of. If a new work satisfies a real *want*, or if the treatment of the subject it deals with is *original*, we are bound to welcome it and secure for it as much public patronage as possible; but if, on the other hand, there is neither necessity for, nor originality in, the new book, we should be wanting in our duty to the public and to the Author himself if we failed to express our honest conviction that the work ought not to have been brought into existence at all.

Judging of the above treatise by the standard we have proposed, we are constrained to say that the work does not meet with our approval. For, with regard to the first point, as to whether the treatise satisfies any real want, we feel bound to say that there is no necessity for such a treatise at all, when we remember that we have such excellent works as Smith's and Chrystal's. These works have in a measure already supplanted (or if they have not, they *will* in course of time) Todhunter's treatise. As regards the second point, we have only to say that we have gone carefully through the volumes, and have come to the conclusion that neither the first nor the second contains anything strikingly original to recommend it. The first volume is perhaps intended for candidates that have to appear for the Entrance Examination of the Calcutta University, but it contains a good deal that is unnecessary and unintelligible to the generality of those candidates. The Mnemonics in regard to simultaneous equations, some of the formulæ, viz., 7, 8, 9, &c., that are recommended to be learnt by heart, the *theory* of simple equations, and the undetermined multipliers, and the indeterminate fractions, are all far above the standard. Besides, there is one defect in the first volume and that is the omission of the discussion of the various methods of factorization. No reference is made to such well-known laws as the Commutative, Distributive, and Associative laws, the enunciation of which forms a distinctive feature of Smith's and Chrystal's treatises. These laws are very simple in themselves; but it is the prominence that is given them by Smith and Chrystal that marks the superiority of their works over Todhunter's.

Similar remarks apply to the second volume. The chapters on cubic and biquadratic equations, and the sum of the powers of the roots, are out of place in a treatise, like the one under review, which appears to be intended for candidates intending to appear for the First in Arts Examination. The above remarks are suggested by a comparison of this work with similar works by Smith and Chrystal.

But, considered in themselves, the two volumes are remarkable for the copiousness of model solutions and examples, of which there are, as the Author says, *five thousand* in the complete work; and they are

66

certainly worth a good deal more than the small sum at which they are priced.

The 'Algebraical Artifices' by the same Author is instructive, and seeing that it costs only Re. 1-4, we can strongly recommend it to the F.A. candidates, to whom most of the examples worked out therein, will serve as model solutions.

[We regret that, owing to great pressure on our pages this month, we are obliged to hold over all acknowledgments and a great many reviews of books for our April number.] EDITOR, *Journal of Education*.

CORRESPONDENCE.

B. A. EXAMINATION OF 1891.

"A Teacher" writes:—One of the portions in Tamil for the B.A. Examination of 1891 is *Kantharuvathathyar Ilambakam*. It is full of obscene words and phrases and contains many stanzas that are highly objectionable, of which I shall mention a few, viz., stanzas 93, 145, 149, 161, 195, 216, 219, 348, 349 and 358. It is very strange that, while the Government of India is trying to raise the standard of morality among Indian students, the University of Madras should have prescribed such a book which the students have to study carefully and digest. I fear it is too late to make any alteration in the Tamil Text for this year, but I hope the University will be more careful in future in selecting books in Tamil for the several examinations.

THE CLAIMS AND LIMITATIONS OF PHYSICAL EDUCATION IN SCHOOL.

An Address delivered at the Annual Meeting of the British Medical Association, held at Birmingham, 1890, by ALFRED H. CARTER, M.D. LOND., Senior Physician, Queen's Hospital, Birmingham.

GENERAL CONSIDERATIONS.

There is, perhaps, no feature more characteristic of modern medicine and more to its credit than the prominent attention which is accorded to all matters and measures which aim at the prevention of disease; and by endeavouring to increase our knowledge of the principles which underlie educational methods, especially in regard to the healthy development of mind and body in the young, we are rendering good service to the cause of preventive medicine.

There are some general considerations to which reference must be made at the outset, and the first relates to the importance of enlightened public opinion with regard to education. There is one error of a funda-

mental kind which is especially common. It is to the effect that education is synonymous with intellectual training, and that intellectual training consists in acquiring information. Until the higher and truer idea of education is grasped as the co-ordinate and interdependent development of intellectual, moral, and physical faculty, we shall not get far on the road of educational reform. The error to which I refer is begotten by ignorance, nursed by prejudice, and ushered into vigorous life under the patronage of those twin demons of modern civilization—unrestricted competition and payment by results. It is our duty as a profession to do what we can, to enlighten public opinion on this matter, and not to lose sight of the fact—in any attempt we may make to improve education on its physical side, and to bring it into closer accordance with those laws of Nature which it is our business to study—that the true object of education is to develop all those faculties which serve to raise the standard of individual and social life, and to bring them into symmetrical and harmonious relation with each other. If the hope is entertained of building up a science of education, the medical profession must combine with the profession of teaching, in order to direct investigation and to collect material essential to generalisation. Without such co-operation educational workers must continue to flounder in the morasses of empiricism, and be content to purchase relative safety at the cost of slow progress, or no progress at all.

OBJECT IN VIEW.

I would also allude to what appears to me to be another source of difficulty in dealing authoritatively with the question of physical exercise and training in schools. It is want of agreement as to the object in view. Apart from the exercise of particular groups of muscles in the acquirement of strength and dexterity for special and restricted purposes (with which we are not at present concerned), it seems to me there are three different points of view from which the question may be considered—closely related, but necessary to be distinguished from each other:—

1. Physical exercise as a means of recreation and amusement.
2. As a means of raising the general standard of health by quickening the circulation, increasing the breathing capacity, promoting nutrition, and facilitating the elimination of waste products from the system.
3. As a means of education, in the sense of educating and developing faculty.

An exercise that is admirable as an amusement is not necessarily one which is best calculated to promote the general health; while an exercise, or set of exercises, which is unimpeachable from a hygienic point of view, may quite often be of little educational value. Each of these

ends is both legitimate and desirable on its own merits, but it is doubtful whether there is any form of exercise which, at one and the same time, entirely meets all three requirements. There is one factor which specially marks off educational exercise from hygienic and recreative exercise, and that is the element of outside control. Exercise as work and exercise as play just differ in this important matter of control. Control is a necessary feature of all true educational work, and if physical exercise is to be included as a necessary part of a liberal education, it cannot be divorced from control. In my opinion much of the confusion which has crept into the literature of the subject arises from a failure to recognise and appreciate their distinctions.

PHYSICAL EXERCISE AS A MEANS OF EDUCATION.

While the general operation of physical exercise as a means of recreation and of promoting health is sufficiently apprehended for the purposes of our discussion here, it is necessary to dwell with a little more detail upon the operation of physical exercise as a means of education.

It is too much the habit to consider muscular exercise apart from the nervous system, with which it is in such intimate connection. The nervous centres not only actuate the muscles, but muscular action reacts in a most important way upon the nervous centres. It increases the number and the size of their cell elements; it strengthens their power, and renders them more discriminative and responsive in their behaviour. Thus the first effect of exercise is to develop its motor faculty. But, further than this, every muscular action is attended with sensory impressions, which, by frequent repetition, are remembered and give rise to what are termed motor ideas. It is remarkable what a large number of elementary and fundamental conceptions depend upon motor ideation. Notions of weight, distance, size, and shape, for instance, would be impossible without previously acquired motor ideas. The accuracy with which such conceptions are formed must largely influence the accuracy of more complex mental conceptions into the formation of which they enter. As Sir J. Crichton Browne says:—"The muscles not only, by the locomotion which they make possible, enormously widen the field from which our sense impressions are gathered, but also, by the experiences which their own activities involve, expand our mental resources a thousandfold." Although it may be objected that these remarks only concern the functions of a part of the brain, yet in an organ the parts and functions of which are so closely correlated, it is impossible to believe otherwise than that the physiological and developmental standard of the whole must be raised by the improvement of so large a part.

NECESSARY IN SCHOOLS.

I will group what further remarks I wish to make round three questions:—

1. Is there a real demand in our schools for systematic physical training?
2. What are the principles which should guide us in the physical training of our children when at school?
3. How can these principles be best applied in practice?

1. With regard to the first question, all *a priori* considerations certainly point to an affirmative reply. The prevalent view, however, appears to be that it is the teacher's business to look after the interests of the mind, the parents' business to look after the moral interests, and the child's business to look after the interests of his own body—at any rate beyond a few elementary requirements, and unless he manifestly breaks down in the attempt. But, apart from this dangerous subdivision of important responsibilities between the teacher who knows something of educational principles, the parent who knows less, and the child who knows nothing at all of them, what grounds are there, I would ask, for assuming that the careful discipline and studied control which all agree in considering necessary for the mind, and which most people consider necessary for the morals, should be altogether denied to the body? The ridiculous nature of such an assumption is obvious as soon as stated. If physical training and development require no special cultivation, they stand alone in this respect. I am quite familiar with the specious argument of many so-called practical people, that you come to do a thing right by doing it. If this method were applied to all branches of education, the latter half of a man's life would be exclusively devoted to unlearning the errors he had acquired during the previous half. All true friends of children would rather say:—"First learn to do a thing right, and go on doing it." Besides the argument of analogy, there are positive facts in support of organised physical training of the young in schools. We know, for instance, that a certain degree of physical integrity is a necessary antecedent of good mental work, and the formation of sound character. We know that physical integrity largely depends upon regular and systematic physical exercise, and (what is more to the point still) we know how often children break down in school life—at least for a time—from want of proper physical supervision, more in day schools than in boarding schools, and more often with girls than with boys.

I have tried to obtain information from several girls' schools in various parts of the country, and the mistresses of eighteen schools have kindly responded to a series of questions put before them in a circular

letter; but unfortunately the answers are given in such a form as to make any rigid comparison untrustworthy. But I will take, as a sample, one large, well-managed day school of over 200 middle-class girls, where some statistics have been very carefully kept. "Over a period of six years, no fewer than 10 per cent. of the total number of girls admitted during that time have been compelled to take one or more terms' leave of absence on account of general debility. No fewer than 13.3 per cent. of the removals during the same period were removed prematurely, avowedly on account of ill health. The average number of daily absences is about 7 per cent., though it is true that some of them are due to infectious disease at home, and not of the scholars themselves. Of the present number in the school, as many as 28 per cent. have medical certificates exempting them from gymnastic exercise, and 10.25 per cent. of the total present number wear eye-glasses of some kind. Without making too much of these figures, there is abundant reason for concluding that many of these failures are from want of proper physical supervision, and at least they constitute a strong *prima facie* case for inquiry.

Lastly, if it be true that by careful physical training the health of the body may be improved and the mental capacity to some extent increased, and the moral character strengthened, surely in these days, when the struggle for existence is so keen that only the fittest survive, the subject of the physical education of the young is one that demands close attention.

(To be continued.)

THE TRAINING OF TEACHERS.

There is an article in a recent issue of the *Forums* on this subject which is an earnest plea for a greater interest on the part of the Universities in establishing chairs of pedagogy, for a greater culture on the part of teachers themselves, and for a pedagogical museum to contain everything of educational interest and be a sort of object lesson to the whole educational country. These subjects form the greater part of the article. Their urgency and need is very apparent indeed, especially as an element in the training of teachers. Our national system of education depends on the quality and quantity of the professional training received by our teachers, and if this be meagre or entirely lacking, which is now largely the case, we can look for but very little in the way of results from the system. Prof. Hall holds now that even in the lower grades, the first need of teachers is a better knowledge of the subjects taught, and after this he places as next in importance a knowledge of the history

of education and the educational institutions, methods, and laws of to-day in our own and other countries. Of these matters the large majority of our teachers are profoundly ignorant, thanks to the small place that the subject of education has occupied even in the most cultured minds. As we stand to-day very little is known even of our own educational history, and as for looking elsewhere for object lessons or inspiration, the following extract from this article fits the situation exactly: "Our professional schools for teachers, our city and State supervisors, and even our highest educational institutions, are conducted without utilizing, or even studying, the experiences of other lands." While this lack of looking abroad to see what is being done for education elsewhere is felt through our whole educational system, it is most felt in the domain of technical and industrial education, upon which so much in the material interests of the nation depends. In these two subjects alone we have more to learn from European countries than we could probably accomplish, unaided in a century.

The moral throughout Prof. Hall's article is to show us how little fitted we are to deal with educational problems and how slowly and shiftlessly we are going about it. Certainly there is a renaissance in educational circles, but not widespread enough to meet the present demand for reform and progress. We have only to consider the problems that are before us to feel how necessary to education are men and women of culture and of professional training.—able to deal wisely and well with whatever comes to them. When it is admitted by thinkers like Herbert Spencer, that the theory and practice of teaching should terminate the education of every one, inasmuch as it is the subject that underlies all other subjects, should we not *a fortiori* expect this standard from teachers and insist upon it? Assuredly we should and we must.

Another element in the professional training of teachers that Professor Hall lays great stress upon is the study of psychology, pure and applied. Prof. Hall is among those who candidly admit that children are but poorly understood, and for this reason he directs attention to what he admirably calls the "heart of psychology," "the senses, memory, habit, attention, association, the will, the psychic development of children." The teacher's field for psychological study and experiment is broad and fruitful.

Most instructive and valuable would such a pedagogical museum as Prof. Hall describes be to the teaching profession of this country, and we hope that some day this idea will take fruit, if not in the foundation of one vast national institution, then in every city and town where a group of teachers can be found.—*The Teacher*, New York.

MADRAS EDUCATIONAL RULES.

His Excellency the Governor in Council hereby notifies that he has accorded his sanction to the following Educational Rules with effect from the date of their publication in the *Fort St. George Gazette*. These rules shall apply to all Departmental, Municipal and Board colleges and schools, to all aided colleges and schools and to all schools recognized by the Director of Public Instruction or under his authority, provided that rules 11, 12, 16 and 18 of section II shall not be held to apply to any indigenous institution nor to any lower primary schools until the first day of January 1895, and provided that the Director may, in his discretion, exempt any upper primary school from their operation until the first day of January 1895.

Provided that the curricula of section IV herein appended shall not, pending further orders, be compulsory on schools falling under section V, and that the Director shall have power to exempt wholly or partially from the operations of the other provisions of this section all such schools of the primary grade in backward districts or for backward classes. His Excellency the Governor in Council also notifies that until further orders the subjects of standard VII in the curricula K-1 and K-2 will be the subjects of standard seven prescribed under chapter III of the Grant-in-aid Code.

All applications for recognition from managers of secondary schools for boys and of all girls' schools must be addressed to the Director through the Inspector of Schools or the Inspector of Girls' Schools of the Circle; from managers of primary schools to the Inspector of the Circle through the Assistant Inspector. The Director may by general order authorize Inspectors to recognize such schools subject to appeal to himself.

Applications for recognition shall be made in such form and with such declaration as may from time to time be prescribed by the Director.

MADRAS EDUCATIONAL RULES.

SECTION I.—CLASSIFICATION.

1. Educational institutions are classified as follows:—

- | | | |
|-------------------------|---|--|
| (a) Public institutions | i. Under public management. | { Managed by Government.
Managed by Local and Municipal Boards. |
| | ii. Under private management. | { Aided by Government or by Local or Municipal Board.
Unaided. |
| Private institutions | i. Advanced—teaching Arabic, Persian or Sanskrit. | |
| | ii. Elementary—teaching Vernacular only or mainly. | |
| | iii. Elementary—teaching the Koran. | |
| | iv. Other schools not conforming to departmental standards. | |

Public Institutions.

"Public institutions include not only Government, Board or Municipal schools which are wholly supported at the expense of public funds, but also any schools which receive aid in any form from the State, even when that aid is confined to the benefits of inspection and supervision, as well as those which regularly send their pupils to the examinations held by the Department."

Private Institutions.

"All indigenous schools which have not accepted the departmental standards of instruction, and all others in which the course of instruction, however advanced, does not conform to the standards prescribed or accepted by the department of the University and which submit to no public test are private institutions."

- | | | |
|---------------------------|--------------|---|
| (b) University education. | Arts | { First-grade Colleges.
Second-grade Colleges. |
| | Professional | { College of Law.
" of Medicine.
" of Engineering.
" for training Teachers.
" of Agriculture. |

- School education. { General { Secondary { Upper Secondary or High schools.
Lower Secondary or Middle schools.
Primary { Upper Primary.
Lower Primary.
Special { Schools of Medicine.
" of Engineering.
" of Agriculture.
" of Art.
" of Industries.
" of Commerce.
" for training Teachers.
2. Institutions are further classified as *English* and *Vernacular*.
In classing a school as *English* or *Vernacular*, the point to be considered is whether or not *English* is a regular, i.e., compulsory portion of the curriculum in standards above the second. If it is not, the school must be classed as *Vernacular*; if it is, as *English*.
3. *Standards in Arts Colleges*.—The standards of instruction in Arts Colleges are—
in First-grade Colleges, the examination for the degree of Bachelor of Arts;
in Second-grade Colleges, the First Examination in Arts.
4. *Standards in Professional Colleges*.—The standards of instruction in Professional Colleges shall be—
in Colleges of Law, the examination for the degree of Bachelor of Laws;
in Colleges of Medicine, the examinations for the degrees of Licentiate in Medicine and Surgery and of Bachelor of Medicine and Master in Surgery;
in Colleges of Engineering, the examination for the degree of Bachelor of Civil Engineering;
in Colleges for training Teachers, the examination for the degree of Licentiate in Teaching.
5. *Standards in Ordinary Schools*.—The standards of instruction in schools for general education shall be—
in Upper Secondary or High schools, the Upper Secondary examination or the Matriculation examination;
in Lower Secondary or Middle schools, the Lower Secondary or the Seventh Results Standard;
in Upper Primary schools, the Primary school examination or the Fourth Results Standard;
in Lower Primary schools, the Third Results Standard.
6. *Standards in Special Schools*.—The standards of instruction in special schools shall be such as are prescribed from time to time.
7. *Standards in Private Institutions*.—Although no standards are prescribed for these schools, this does not preclude managers of such schools working in accordance with curricula from time to time approved by the Director.
8. *Arts Colleges* shall contain the following classes:—
First-grade Colleges—
Senior B. A. class.
Junior B. A. class.
Senior F. A. class.
Junior F. A. class.
Second-grade Colleges—
Senior F. A. class.
Junior F. A. class.
9. *Schools for general education* shall contain the following classes:—
Upper Secondary or High schools—
Sixth Form.
Fifth Form.
Fourth Form.
Lower Secondary or Middle schools—
Third Form (Seventh Results Standard).
Second Form (Sixth Results Standard).
First Form (Fifth Results Standard).
Upper Primary schools—
Fourth Class (Fourth Results Standard).
Lower Primary Schools—
Third Class (Third Results Standard).
Second Class (Second Results Standard).
First Class (First Results Standard).
Infant Class (Infant Standard).

SECTION II.—CONDITIONS OF RECOGNITION.

10. All the rules contained in this section shall be enforced in every recognized school including the school departments of aided colleges, except in so far as Government may from time to time exempt from their operation special tracts of country or classes of schools.

i. Staff.

11. *Headmasters*.—The permanent headmaster of every newly opened school, and every newly appointed headmaster shall (1) be a Licentiate in Teaching, or (2) hold a Normal certificate, or (3) hold an ordinary certificate and have had at least four years' approved service as a teacher in recognized schools, or (4) have had at least seven years' approved service as a teacher in recognized schools.

12. *General Staff*.—In every school, at least one-half of the general staff, exclusive of pandits, munshis, gymnastic instructors, and writing masters, shall consist of persons who (1) are Licentiates in Teaching, or (2) hold Normal certificates, or (3) hold ordinary certificates and have had at least two years' approved service as teachers in recognized schools, or (4) have had at least five years' approved service as teachers in recognized schools.

13. *General educational qualifications*.—The general educational qualifications of all regular teachers shall be such as may be prescribed from time to time by Government.

14. *Non-Indian Certificates*.—Non-Indian diplomas or certificates accepted by the Madras Government shall be held as qualifications under rules 11 and 12.

15. *Proportion of teachers to pupils*.—There shall be at least one regular teacher, exclusive of pandits, munshis, gymnastic instructors, and writing masters, for every fifty pupils on the rolls.

ii. Accommodation and Sanitation.

16. *Site, plan, and accommodation*.—No new school shall be recognized which is held in a building of which the site, plan, and accommodation have not been approved by the Director of Public Instruction.

17. *Sanitary inspection*.—Every school building shall be maintained in substantial repair and in a cleanly condition. It shall be subject to inspection by the educational inspecting officer, the Sanitary Commissioner, or his Deputy and the surgeon of the district.

18. *Dimensions of building*.—In primary schools held in closed buildings, the dimensions of the building shall be such as to provide at least six square feet and sixty cubic feet of space for each pupil on the rolls. In all other schools, the space provided for each pupil on the rolls shall not be less than eight square feet and eighty cubic feet. In calculating the dimensions of buildings under this rule, verandahs may be included which are solidly constructed and on which class rooms open.

19. *Overcrowding of class-rooms*.—No class-room shall be permanently used as such by a larger number of pupils than the Inspector or Sanitary officer has declared it sufficient to accommodate.

20. *Latrine*.—Every school above the primary grade shall be provided with a latrine, to be approved by the officer inspecting it under rule 17.

21. *Furniture, apparatus and appliances*.—Every school shall be provided with such furniture as the Inspector of Schools declares to be necessary. It shall also be provided with the apparatus and appliances declared by the Inspector to be necessary for the standard of instruction up to which it teaches.

iii. Admission of Pupils.

22. No pupils shall be newly admitted to any recognized school unless accompanied by his parent or guardian, or at least provided with a letter of application for admission from his parent or guardian.

iv. Inter-School Rules.

23. No pupil who has already been enrolled for a term at any recognized school shall be admitted to another during that term, except on production of a certificate granted under rule 26.

24. No pupil who has previously studied in any recognized school admitted to another unless he presents a leaving certificate from his last school showing that he has paid all fees due to that school, (b) the class in which he studied at the time of leaving it, and (c), if it is the time when the annual promotions take place, whether he has qualified for promotion to a higher class.

25. The headmaster of the school into which a pupil is admitted shall not place him in any higher class during the term in which he has been admitted than the one he would have been in at the school he has left.

26. The headmaster shall give a leaving certificate at any time to a pupil who asks for it for good and sufficient reasons, and shall give such certificate without any inquiry into reasons if it be asked for at the end of a term, or at the beginning of a term before the latest date fixed for the payment of the fee.

27. In the event of the headmaster refusing a leaving certificate, the parent or guardian of the pupil shall have the right of appeal to the Director of Public Instruction, whose decision shall be final.

28. If a pupil is found to have obtained admission by means of a false certificate or false representations of any kind, he shall be summarily dismissed with forfeiture of whatever fees he may have paid.

29. In the event of a pupil being dismissed under rule 28 or being formally expelled on account of grave misconduct, the headmaster shall record his reasons for the expulsion, and report the fact at once to the parent or guardian of the pupil, and within seven days, to the Inspector of Schools or the Director of Public Instruction. A pupil thus expelled from one school shall not be admitted into any other without the sanction of the Director of Public Instruction.

v. Registers, &c.

30. Every school shall keep in the prescribed forms and submit to the Inspecting officer the following registers:—

- (1) A register of admissions and withdrawals.
- (2) A monthly register of attendance, fees, and fines.
- (3) A term register of fees (Appendix F).
- (4) A time-table.

SECTION III.—SPECIAL CONDITIONS FOR AIDED COLLEGES AND SCHOOLS.

31. All the rules contained in this section shall be enforced in every aided institution, including the unaided school departments of aided colleges, in addition to the rules contained in the preceding section, and in addition to the provisions of the Grant-in-aid Code relating to management and staff, except in so far as the Government may from time to time exempt from their operation special tracts of country or classes of schools.

32. Every institution shall strictly observe the provisions of the Fee Notification for the time being in force.

33. Every institution shall keep an acquittance roll (Appendix E).

34. Every institution shall keep a catalogue of the books in its library, and a register, in a form approved by the Inspecting officer, of the books taken out.

35. In every college there shall be one or more common-rooms for the use of members of the staff when they are not engaged in teaching.

36. In every college class there shall be a fixed place assigned to every student.

37. The rules of discipline in Colleges and Upper Secondary schools, shall include the following:—

(a) Every student and pupil shall wear a clean and decent dress, and in all cases where good manners require it a suitable covering for the head.

(b) No student or pupil shall be allowed to sit in the class with his shoes on, unless they are shoes of English pattern and unless socks and trousers are worn also.

(c) Every student and pupil shall salute the professors and teachers on the occasion of his first meeting them for the day within the college or school precincts. All such salutes should be returned by those saluted.

(d) On the professor or teacher entering his class-room, the students or pupils shall rise and remain standing till they are desired to sit or till the professor or teacher takes his seat.

(e) No student or pupil shall be allowed to leave the class-room without the permission of his professor or teacher, or until the class is dismissed.

(f) The students of every college shall salute the professors of any college whom they may meet in public and recognize.

SECTION IV.—HINTS AND SUGGESTIONS ON THE MANAGEMENT OF SCHOOLS.

i. The time-table should be carefully devised with the following main objects in

(1) devoted to each group of subjects, such as English, Mathematics, Science, and History, should be proportioned to their relative difficulty and extent; (2) the subjects requiring the severest mental application should be taken when the pupils are freshest; (3) comparatively difficult and easy subjects should alternate; and (4) the lesson should be so long as to weary the pupils, or so short as to conclude before they have thoroughly entered into the subject. There should be a general time-table for the whole school, one for each class, and one for each teacher. The class time-tables should show the daily work of the pupils, and by whom each subject, including

gymnastics, is taught, and the home exercises to be done. The time-tables of the masters should show, besides their regular class work, the time devoted to supervision, which in the case of the Headmaster will be general, and in the case of the others particular. School should not be held continuously for more than three hours at a time. The time-tables should be rigidly adhered to, and changes should rarely be made; but when changes are found necessary, revised time-tables should at once be prepared. Each time-table should be dated, and should be hung up in a conspicuous place in each class-room.

Each pupil should have a copy of the time-table of his class.

Care should be taken that the school is always opened strictly at the hour mentioned in the time-table.

ii. *Distribution of Teaching Staff.*—In Upper Secondary schools the practice of allotting to each teacher certain subjects in different classes, which he is specially qualified to teach, may be advantageously followed, without interfering with the responsibility of an individual teacher for the general discipline of each class. In Lower Secondary and Primary schools, however, each teacher should, as far as possible, have charge of the same class in every subject, and be responsible for it, subject to the general supervision of the Headmaster. It is, however, particularly recommended that the regular English lessons, throughout the school, be entrusted to none but teachers who are competent to teach the subject.

The regular translation exercises also, both from the vernacular language into English and *vice versa*, require to be conducted by teachers who know both languages well.

iii. *Course of Instruction.*—Curricula K-1 and K-2 apply to institutions for general education, mainly intended for Hindus and Muhammadans. Curricula L-1 and L-2 are mainly intended for European schools. Curricula S-1 and S-2 are intended, the former for schools teaching up to the Matriculation standard, and the latter for schools teaching up to the standard of the Upper Secondary examination. A list of text-books in the different subjects included in the curricula will be published from time to time by the Director of Public Instruction.

All European, Eurasian, and Muhammadan pupils should be encouraged to study the vernacular language of the district in which they reside, so far as to be able to use it for the purposes of every-day life. Such Hindu pupils also as study a classical language should be required to continue the study of their own vernacular language, especially as regards reading, writing, translation and composition.

It is very important that the pupils go through in the year the portions prescribed as a year's work for each class. If the amount prescribed as a year's work is not done within the year, it must be inferred that the pupils have been promoted to a class for which they are unfit, or that the teacher is unequal to his duties, or that, owing to want of judgment, he dwells too long on minor particulars, and so gets through in the time devoted to each subject much less than he ought to do.

iv. *Subjects of Instruction.*—As the teachers employed in aided and recognised schools may be supposed to be properly qualified for their work, detailed instructions as to the mode of teaching the various subjects are unnecessary. Experience has, however, shown that there are some respects in which the teaching or treatment of some subjects is almost universally defective. The following hints are therefore offered in regard to the following subjects:—

1. *English.*—The practical command of English which pupils possess is much more limited than it ought to be, and with the view of remedying this deficiency it is recommended—

(a) That teachers accustom their pupils to express their answers in the form of complete sentences, instead of, as is the common practice, in words or phrases.

(b) That oral translation from the vernacular language into English of detached sentences, involving some idiom or peculiarity of construction, form a short part of every lesson in English, the object to be aimed at being readiness and accuracy of rendering.

(c) That, similarly, oral composition in English be practised by requiring sentences to be formed in which given words and phrases are introduced.

The teacher should make due preparation beforehand for these last two exercises, in order that they may be performed without waste of time.

(d) That, when English synonyms are given involving a change in dependent words, the synonyms with the necessary changes or additions should be substituted for the original words, and the sentences containing them read by the pupils.

2. *English Reading.*—The defects which very generally prevail and which should, therefore, be remedied, are the incorrect pronunciation of words in respect of certain consonant powers and vowel sounds, and accent; the improper use of emphasis; indistinctness of utterance; and absence of proper expression.

3. *Recitation of English Poetry.*—The same defects as noticed above, and, in addition, inattention to elisions and proper pauses, and a monotonous sing-song style.

Neither good reading nor good recitation can be secured unless a great deal of pains be bestowed on them by way of example, instruction, and practice.

4. *Recitation of Vernacular Poetry*.—This is recommended to be done not in the style of English poetry, as is most commonly the case, but in the national style, that is, with the appropriate *ragams*.

5. *Vernacular Grammar*.—The rules laid down in the text-books are usually well learnt, but the application of the rules is very generally neglected. It is most important not only that the rules should be learnt but that the practical application of them should be attended to.

6. *Writing*.—The appointment of a special master, qualified to teach writing, is strongly recommended in all schools which can afford to pay for his services. Mere supervision by the class-master of the pupils when engaged in writing is quite inadequate. In very few schools is any attempt made to teach a *current* hand, which, however, is what should be aimed at. The style of writing recommended is a round, bold, upright or slightly forward-inclined, current hand, with capitals of the simplest possible form.

7. *Spelling*.—The common practice in class work is to test spelling orally. But it should be understood that the practical use of spelling is to write words in their correct forms, and the proper test to apply for spelling is, therefore, writing the words. As a means of casual testing, the black board is the most convenient. It has been found that pupils who can spell correctly orally, frequently write the same words wrongly.

8. *Arithmetic*.—The prominent defects in Arithmetic as generally taught are inaccuracy of computation, slowness in working, slovenliness of arrangement and execution, and very often an unnecessary amount of explanation. A thorough acquaintance with the tables, the practice of making all calculations mentally that can easily be done, instead of working out even the simplest operations in full, the adoption of the shortest intelligible methods, and the working of model sums by the teachers, are the remedies suggested.

9. *Use of Vernacular*.—Teachers oftener than not address their classes, whether by way of questioning or explanation, solely in English, ignoring the fact that the greater part of their explanations, and not a few of their questions, are partially or completely unintelligible owing to the very limited practical command of the language possessed by the pupils. Thus pupils are put questions which they do not completely understand, and as they are expected to answer them, they acquire the very bad habit of guessing. Every teacher should convince himself of the necessity of making himself perfectly intelligible to his class in all he teaches and should act accordingly. This he can often do only by resorting to the use of the vernacular language of his pupils.

10. *Use of the Black Board*.—Nearly every teacher has a black board placed in front of his class when he is engaged in teaching, but very few use it, except to work out examples in Mathematics and draw the figures in Geometry. No instrument lends more effective aid to teaching than the black board when judiciously used. Every teacher should, therefore, acquire the habit of using it. But he should be careful that all he exhibits on it should serve in every way as a model of imitation for his pupils.

11. *Drawing*.—Drawing has not yet secured a generally acknowledged position in the school curriculum. It is, however, deserving of consideration as "not only in a practical sense, indispensable to the skilled artisan, and capable of manifold useful applications by scholars of every class; but its indirect effect on the training of the perceptions, on taste, on clearness of vision and firmness of hand, is still more important as an element in a liberal education."

12. *Map-drawing*.—This forms one of the home-exercises, but it is considered of such importance that a few remarks are offered on it separately. There is absolutely no uniformity observed in any respect in connection with this subject. In different schools, and even in different classes of the same schools, the maps drawn vary very much in size, some being unwieldily large and others very small, in style, in execution, in completeness or want of completeness, in the mode of coloring, the majority being covered with gaudy daubs of color, in the spelling of the names which are frequently incorrect, and in the number drawn in the same class; absurdities also frequently abound, such as rivers stopping short of the sea or of other rivers of which they are supposed to be tributaries, rivers crossing one another and running over mountain ranges; numerous imaginary tributaries attached to most of the rivers; rivers running in the wrong directions, coast-lines interrupted, towns located in the wrong places, &c., &c. From all this it may be inferred that pupils generally have no correct idea of what a map is, that no instructions have been given them as to how a map should be drawn, and that the pupils have been left to do as much or as little as they pleased. In order to remedy this very unsatisfactory condition of things, the following hints are offered:

(a) Approved projection and outline maps should be used, the book form being preferable to loose sheets.

(b) Every continent and country studied in the class should be drawn, and they should follow one another in the order in which they are treated of in the text-book.

72

(c) The maps should be drawn in the simplest manner possible, and all attempts at elaboration, ornamentation and coloring should be avoided, so as to incur the least possible expenditure of time.

Pupils, however, who show a particular taste for map-drawing, may be encouraged to produce highly-finished maps during vacation time.

(d) Mountain chains should be represented by more or less broad lines, according to their elevation, which may be drawn by a single stroke of the pen; peaks should be indicated by small rings in the lines of mountains, and when rivers find their way through gorges, the gorges should be indicated by a short break in the line.

(e) Rivers should be delineated by wavy lines similar to those used for coast-lines, but should gradually increase in thickness with the increasing volume of the river.

(f) Table-lands should be shown by shading, the shading being deeper the higher their elevation.

(g) Political boundaries should be indicated as they usually are in printed maps, viz., the major boundaries by a series of short lines, and the minor ones by a series of dots.

(h) Only those physical features and places should be represented which are treated of in the text-book of the class.

(i) All the features and places indicated on the map should be neatly lettered, the teacher instructing his pupils in the manner of doing it, which he may ascertain by noticing how it is done in an Atlas or printed map.

(j) A fair amount of accuracy should be required, and particular attention should be directed to the proper spelling of the names.

13. *Kindergarten Method of Instruction*.—Very great attention is now being given in schools in Europe to the Kindergarten method of instruction. It is absolutely necessary that all teachers of elementary schools should be acquainted with this method. In connection with this method of instruction a great deal of importance is attached to Object lessons. These should form an essential part of the curriculum of elementary schools. The introduction of Object lessons in the Infant and primary classes will not only draw out the powers of observation of children, which is the most important part of early education, but it will also give a practical turn to elementary instruction and lay the foundation of technical instruction as well. In organizing special infant departments care should be taken to adapt the instruction therein to the requirements of infants, by neglecting no means likely to stimulate their interest in their earliest school work and especially by giving prominence to such exercises as may develop the faculties of observation, manual dexterity and general intelligence.

v. *Home Work*.—In addition to the careful preparation of the daily lessons, pupils should be required from time to time to give in exercises in—

- (a) Translation from the vernacular language into English and *vice versa*.
- (b) Exercises in Arithmetic and Mathematics.
- (c) Exercises in Grammar and Composition.
- (d) Maps.

There should be separate exercise books of uniform shape and size for each subject. From the Third Form upwards the books should be without horizontal lines, as the higher classes should acquire the habit of writing straight, equidistantly, and otherwise neatly, without the aid of lines. Classes below the Third Form may be allowed the use of ruled books. If paper of good quality is used, both sides may be written on; otherwise only one side. A line should be ruled on the left-hand side of each page about an inch from the edge, and in the margin thus ruled off should be entered the serial number of the exercise

and the date of its execution, thus:

No. 6
12-6-90.

 At the bottom of each exercise a line should

be ruled right across the page, so that the different exercises may be distinctly separated.

The translation books should be divided into two columns, if large enough, the left-hand one of which should contain the passage to be translated, and the right-hand one the translation. If the books are not large enough to be thus divided, opposite pages may be used.

Translation should hold the first place among the home-exercises and arithmetic the second. At least two exercises in translation from the vernacular language into English should be given for one from English into the vernacular language.

vi. *Admission of New Pupils*.—The admission of new pupils should as far as possible take place early in the first term of the year. The only other convenient time is the commencement of the second term. The admission of pupils at other times should be discouraged, except when good reasons can be shown for complying with such applications, such as a change of residence necessitated by the death or transfer of a pupil's parent or guardian. All such admissions must be subject to the conditions specified under the Inter-school Rules. The Headmaster should in all cases exercise his own discretion in regard to such admissions. It must be clearly understood that admissions into a class at any other time than immediately after the year's course has commenced will, in most instances, interfere to a greater or less extent with the due progress of the whole class. When new pupils are admitted, the Headmaster should be careful to see that they are not admitted into classes beyond their own standard of attainments. A pupil should not be admitted

into a class on trial, and some time afterwards degraded if he is not found fit for the class. When, owing to an error of judgment, he has once been admitted, he should be allowed to remain.

vii. *Promotion of Pupils.*—It is recommended that pupils be promoted from one class to another only after a regular examination to test their fitness, and only such pupils as prove their fitness should be promoted. Importance on the part of parents and others to have unqualified pupils promoted should be resolutely withstood.

Next after the efficiency of the teaching-staff, the most important element of success in a school is the strict promotion of pupils into classes which they are properly qualified to enter. Schools in which these two necessary elements of success exist ought to pass not less than 75 per cent. of their pupils in the public examinations, with a fair proportion in the first class.

The practice of selecting the best boys to go up for any of the public examinations, and forbidding the rest to appear is wrong in principle. As a general rule, the soundness of the work done in any class should be judged not by the absolute number of pupils who pass, nor even by the proportion which these bear to the number sent up, but by the proportion they bear to the number in the class.

viii. *Leave to Pupils.*—It should be a standing rule of every school that pupils should not absent themselves from school without leave previously obtained from the Headmaster. In a case of sudden illness, the fact should at once be communicated to the Headmaster by the pupil's parent or guardian. Continuous absence without leave for a week ought to be considered equivalent to the withdrawal of a pupil from school, and his name ought to be struck off the roll of his class.

In marking the class register, care should be taken to indicate the circumstances under which a pupil is absent, whether on leave previously obtained (l), on account of sickness (s), or without leave (a).

ix. *Holidays and Vacations.*—Sundays and Saturdays should be whole holidays. Occasional holidays should be granted in accordance with the official lists prescribed for the district.

The usual vacations may suitably be :—

For Upper Secondary schools at least a month in the summer and three weeks at Christmas, or six weeks in summer and the gazetted holidays at Christmas.

For Lower Secondary and Primary schools at least a month in summer and the gazetted holidays at Christmas.

x. *Physical Training.*—The benefits derived from physical training, moral as well as physical, being almost universally acknowledged, it is strongly recommended that it be made generally compulsory in every school, exemptions being made only on medical certificates issued by competent medical officers.

Schools should be provided with suitable gymnastic apparatus, as prescribed by the Madras Physical Training and Field Games Association, and a carefully-prepared curriculum should be followed. A trained gymnastic instructor should be employed.

Whenever gymnastics and drill are being taught, a regular class master should be present in order to see that prompt obedience is yielded to the gymnastic instructor, and that the exercises are properly performed.

Other physical exercises besides those taught by the gymnastic instructor should be encouraged, such as cricket, lawn-tennis, and foot-ball.

xi. *Moral Training.*—In every institution, whether conducted on a secular or a religious basis, the teacher should take advantage of suitable opportunities for cultivating the moral sense of the pupils entrusted to his charge. He should aim not merely at training the faculties of the pupils for the acquisition of knowledge, but also at producing a high and altruistic type of character. The tone of the school will largely depend on the personal character and conduct of the masters. By mingling as frequently as possible with the pupils in their sports and out-door exercises, the teachers will be able to influence them beneficially, besides helping to create a corporate feeling. It will be the duty of the teachers to check any exhibition of want of politeness and respect towards their elders and superiors; but on the other hand, they should not encourage cringing servility. The habit of self-reliance should be fostered. The retention at school of pupils of a comparatively advanced age who do not rise beyond the lower classes should be discouraged as much as possible, as the presence of such pupils is not only morally dangerous, but is apt to lower the tone of the school and thus to check the desire to excel among the younger scholars.

xii. *Furniture and Apparatus.*—An Upper Secondary school should be provided with the following furniture and apparatus :—

(a) As many benches and writing desks as are required to accommodate all the pupils in the school, allowing 18 inches lateral space for each pupil. Reversible desks, that is, those that can be used either as seats and writing desks or as seats with backs, are recommended.

(b) A black board of not less size than 4½ feet x 3 feet, supported on an easel adjustable for height, for each class.

(c) A complete set of maps required for the Fourth, Fifth and Sixth Forms, of sufficient size to be used in class-teaching.

(d) A complete supply of physical and chemical apparatus and chemicals.

- (e) A reference library.
- (f) A lending library.
- (g) A terrestrial globe.
- (h) A complete set of class-books for each class.
- (i) A clock that will keep time, a large and a small bell, a pointer for each class, a duster for each black board, and a supply of chalk prepared in pieces of suitable form and size.
- (j) Suitable receptacles for the library and the scientific apparatus.
- (k) A table and a wooden chair or stool for each teacher. Rattan-bottomed chairs are not recommended.

Other things, such as charts and diagrams, may be added.

Lower Secondary schools require a similar supply, with the exception of physical and chemical apparatus and chemicals.

Primary schools should be provided with benches with backs for all the pupils of the fourth and third standards at least, and strips of substantial matting for the lower standard pupils to sit on; a black-board for each teacher, not less than 3½ feet x 2½, the maps required for each standard class, stools for the teachers to sit on, one table at least, a ball frame, and kindergarten apparatus when kindergarten is taught.

Pictures of animals and common objects should also be provided wherever they can be afforded. It would also be desirable to form collections of such common objects as are treated of in object lessons.

viii. *School Libraries.*—Every Secondary school, whether upper or lower, should be provided with a reference library and a lending library. The former is intended mainly for teachers and the latter for pupils, and in selecting books for forming new libraries, or for adding to existing libraries, these facts should be borne in mind.

Books in the vernacular languages should find a place in all school libraries, and libraries for Lower Secondary schools are recommended to be composed very largely of vernacular books.

xiv. *Condition of the School-house and its surroundings.*—The school-house ought to be swept early every morning and the furniture dusted. The walls and roof require occasional sweeping to keep them free from dust and cobwebs. Rubbish of any kind should not be allowed to accumulate in the school compound, and bits of paper should be daily removed. The pupils should not be allowed to scrawl on the walls either outside or inside, or on the doors and windows, with pencil or chalk. The walls should be white-washed or grey-washed at least once a year, and the inner walls should be washed or painted with a darker color to the height of four feet from the floor. Every article in the school should be kept in its proper place, and attached to every Secondary school there should be a store-room in which to place any articles not in immediate use, so that they may not lie about in corners of the school-room, and thus give it an untidy appearance. The school-room and its surroundings ought always to be a model of neatness and cleanliness. Broken furniture that does not admit of repair, worn-out maps, and other articles that can no longer be used, should be disposed of either by private sale or by auction.

SECTION V.—CONDITIONS TO BE ENFORCED IN COLLEGES AND SCHOOLS MANAGED BY THE GOVERNMENT OR BY LOCAL FUND OR MUNICIPAL BOARDS.

1. All the rules contained in this section shall be enforced in every institution maintained by the Department or by Local Fund and Municipal Boards, in addition to the rules contained in Sections II and III, except in so far as the Director may from time to time exempt from their operation Primary schools for girls and other Primary schools in backward districts, or for backward classes. The "Hints and Suggestions" contained in Section IV shall be binding as rules in institutions falling under this section.

2. *Dress.*—Every professor and graduate teacher in a College or Upper Secondary school shall wear his University gown within the precincts of the institution during the hours of study.

3. *General Staff.*—No new teacher, exclusive of pundits and munshis, shall hereafter be permanently appointed who (1) is not a Licentiate in Teaching; or (2) does not hold a Normal certificate, or (3) does not hold an Ordinary certificate and has not had at least two years' approved service as teachers in recognised institutions; or (4) has not had at least five years' approved service as teachers in such institutions. This rule does not apply to officers appointed by the Secretary of State. The Director has power to exempt from the operation of the above rule for special reasons teachers locally appointed.

4. *Curriculum.*—The curriculum adopted in Secondary schools shall be that prescribed under Section IV of the educational rules, modified from time to time by the Director of Public Instruction. The Director will in each language prescribe selections to be read in the fourth, fifth and sixth forms, and in such other forms or Primary classes as may be necessary.

5. *Strength of Classes.*—Without the express sanction of the Director, the strength of a B.A. class shall not continuously exceed 80; that of an F.A. class 60; that of a Secondary class 40; and that of a Primary class 30. The strength of classes in special institutions shall be fixed from time to time by the Director.

6. *Fees.*—In every institution shall be levied such fees as may from time to time be prescribed by Government.

7. *Registers.*—The following additional registers shall be maintained in the form and in the manner from time to time prescribed by the Director:—

- (1) Register of drill or gymnastics (in institutions for boys).—App. G.
- (2) Register of corporal punishments (in institution for boys).—App. H.
- (3) Register of scholarships.—App. I.
- (4) Log-book (in schools).

N.B.—The log-book must be kept by the principal teacher, who should enter in it from time to time such events as the introduction of new books, apparatus or courses of instruction, any plan of lessons approved by the Inspector, the visits of managers, absence, illness or failure of duty on the part of any of the school staff or any special circumstances affecting the school that may, for the sake of future reference or for any other reason, deserve to be recorded.

No reflections or opinions of a general character are to be entered in the log-book.

8. *Apparatus and Appliances.*—Colleges shall be adequately provided with apparatus, specimen models, charts, &c., &c., required for all science branches of the arts curriculum in which instruction is given in the college. Upper Secondary schools preparing candidates for the Matriculation examination shall be provided with the chemical and physical apparatus prescribed by the Director from time to time (*vide* Appendix A). All schools preparing candidates for examination under the Science and Art notification shall be provided with the apparatus necessary for instruction in the subjects taught, which may from time to time be prescribed by the Director of Public Instruction. The lists of apparatus, &c., shall be duly notified and entered in the appendices to this section.

9. *Gymnastic Apparatus.*—Colleges and large Upper Secondary schools shall be provided with the gymnastic apparatus prescribed in Appendix B.

Also with at least one lawn-tennis or badminton court. Other Secondary schools with those given in Appendix C. Primary schools (for boys) shall be provided with the apparatus prescribed in Appendix D.

[The size of a gymnasium is immaterial, provided there is space enough for the free performance of every exercise. A suitable size for a fully-equipped gymnasium is 80 feet by 40 feet.]

Girls' schools shall be provided with the following Calisthenic apparatus:—

- (1) Dumb-bells, (2) Rings, (3) Poles. [These should be made as light as possible.]

10. *Examinations.*—Annual written examinations in all the subjects shall be held in college classes, and arrangements shall, if possible, be made for their being conducted by outsiders. Promotions to the Senior B.A. and Senior F.A. classes shall ordinarily be determined strictly by the results of these examinations. Written examinations shall also be held at least once every quarter in colleges to test the progress of students in the different subjects. If convenient, the question papers set to college and high school classes shall be printed.

In Secondary school, also promotions shall ordinarily be determined by the results of the written examinations at the end of the school year.

Written examinations shall be held at least twice, and oral examinations at least four times during the year in Secondary schools.

In Primary classes oral examinations shall be held in some of the subjects, if not in all, once every month by the headmaster. Promotion to the first form (fifth results standard) in boys' schools shall ordinarily be regulated by the results of Primary School examination. Promotion to the other classes shall, as much as possible, be regulated by the results of the examinations conducted by the inspecting officer either for results grants or for other purposes.

11. *Sanctioned Vacations and Holidays.*—Sundays and Saturdays, or Sundays and Fridays, in the case of Muhammadan schools, shall be whole holidays.

The following is a list of miscellaneous holidays allowed. With the sanction of the Director of Public Instruction any local holidays may be substituted for those named in the list, but in Middle schools proper, including Primary classes, when a casual holiday is given, the weekly half-holiday or fortnightly holiday, as the case may be, should ordinarily be surrendered:—

Names of Holidays	No. of days
Tamil New Year's Day	1
Brāhman or Aśvini Suktam	1
Vishuaka Chaturthi	1
Krishna Jayanti	1
Mahalaya Amavasya	1
Saraswati Puja or Dasara	1
Dipavali	1
Sivaratri	1
Telegu New Year's Day	1
Queen's Birthday	1
Easter	6
Michaelmas	6

The summer vacation in First-grade Arts colleges will, usually be two months. In Second-grade Colleges and High schools, including lower departments, the period will usually be one month and fifteen days, and in Middle schools one month; in Second-grade Colleges and High schools the vacation may, with the Director's sanction, be extended when it is thought desirable, the excess being made good by reducing the Christmas vacation proportionately. The Christmas vacation, including Sankranti, will extend usually from the 23rd December to the 15th January, both days inclusive, in Colleges and Secondary schools. In Primary schools for boys in the Hill tracts of the Northern Circars, and in girls' schools, the period of the summer vacation will generally be one month, as in the case of Middle schools proper. The Christmas vacation will usually extend from the 23rd December to the 15th January.

In Muhammadan schools Sundays and Fridays shall be whole holidays, and the following other holidays shall be allowed:—

Names of Holidays	No. of days
Moharrum	10
Bakreed	5
Akharee Charshumba	1
Barawafat	1
Garveen	1
Shaban	1
Peer Peeivan's Oorooos	1
Buidoo Shabeed's Oorooos	1
Khader Wallis's Oorooos	1
Queen's Birthday	1
Easter, including Good Friday	5
Ramzan and Eid-i-Ramzan, in lieu of the summer vacation	32
Christmas from the 23rd December to the 3rd January	12

In all cases in which changes are made in the regular holidays, a revised list with the number and date of the order sanctioning the change and signed by the Director of Public Instruction shall be hung up in the school-room. The date on which the college or school is closed for the Summer and Christmas vacations, and that on which it is reopened after these vacations shall be reported to the controlling authority.

12. *Punishments.*—Coming late to school, neglect in the preparation of exercises, inattention in school and minor offences against order and discipline may be punished by loss of places, loss of marks, standing out, impositions and detention during the hours of play. If written impositions are set, care should be taken to insist on good writing. No corporal punishment shall be inflicted except in the case of moral delinquency, such as deliberate lying, and obscenity of word, or act or flagrant insubordination, and then it shall be limited to six cuts on the hand and be administered only by the headmaster. As a further check on the abuse of corporal punishment, the headmaster shall be required to record every case in which such punishment has been inflicted, specifying the date, the name, class and age of the pupil, the nature of the offence and the amount of the punishment. Gross cases of immorality and offences, for which other punishments are insufficient, shall be punished by expulsion subject to the conditions of Article 27, Section III.

13. *Use of Buildings.*—(1) The officer in charge of a college, school, or other educational institution (Government or Board) may grant the use of such building or a room in the same for the holding of meetings connected with public affairs, provided that—

- (a) application, in writing, for permission is made to the officer concerned, by the principal person or persons interested in such meeting, at a reasonable time before the meeting;
- (b) the application clearly states the objects of the meeting;
- (c) the meeting is to be held at a time which will cause no interference with educational work;
- (d) the object of the meeting is not of a political character, nor connected with any social or other matter upon which the opinion of the community of the neighbourhood is likely to be seriously divided, or the discussion of which is likely to cause unnecessary offence.

(2) In dealing with applications, no distinction will be made between persons who are directly connected as masters or students with the institution and persons who are not so concerned.

(3) Educational officers will also use great discretion in allowing the buildings under their charge for the use of public lectures.

(4) The above restrictions do not apply to debating societies connected with the institution working under rules approved by the Principal or the Headmaster.

(5) In doubtful cases the orders of the Director should be sought.

[Note.—This supersedes the publication made in the *Gazette* of the 10th January 1891].

COLLEGE OF ENGINEERING, MADRAS.

LIST OF QUALIFIED ENGINEERS, ENGINEER SUBORDINATES, DRAFTSMEN AND SURVEYORS (OTHER THAN THOSE TO WHOM APPOINTMENTS ARE GUARANTEED BY GOVERNMENT) WHO COMPLETED THEIR COURSES OF INSTRUCTION ON 31st DECEMBER 1890.

Circulated under Article X of the College Code of Rules to Local Boards, Municipalities, &c.

I.—CIVIL ENGINEER.—Course: three years in the College, one year in Workshops, and one year on Public Works.

Name.	Address.
C. Kanakasuriyam Pillai	Point Pedro, Jaffna.

II.—MECHANICAL ENGINEER.—Course: three years in the College, and two years in Workshops.

Name.	Address.
V. Daivasikhamani Pillai	Care of Mr. Velu Pillai, Vellala Street, Parasawakum, Madras.

III.—ENGINEER SUBORDINATES.—Course: two-and-a-half years in the College, one year in Workshops and one on Public Works.

Name.	Address.
T. Venkatarama Aiyar	Care of N. Pichu Aiyar, Inspecting Schoolmaster, Trivellore Taluk, Trivellore.
P. Sivasubrahmanya Pillai	Care of Pandipernuma Pillai, Kovilpat, Kalakad, Tinnevely District.

IV.—DRAFTSMEN.—Course: two years in the College.

Name.	Address.
S. Subrahmanya Aiyar, 2nd-class Certificate.	Care of S. Sankara Narayana Aiyar, Police Station-house Officer, Paramatti, Namakkal Taluk, Salem District.
M. V. Srinivasa Aiyar, 1st-class Certificate.	Manalur via Narasingampet, South Indian Railway.
D. Tiruvengada Mudaliyar, 2nd-class Certificate.	No. 24, Car Street, Mylapore, Madras.
S. A. Manickaswami Mudaliyar, 2nd-class Certificate.	No. 24, Main Road, Royapuram, Madras.
F. W. Cambs, 3rd-class Certificate	Care of Conductor W. Cambs, Chepak, Madras.
L. A. Natesa Aiyar, 3rd-class Certificate	Care of Mr. L. A. Ganapati Aiyar, Professor, S. P. G. College, Trichinopoly.

V.—SURVEYORS.—Course: two years in the College.

Name.	Address.
K. S. Vyasa Rao, 1st-class Certificate	Care of Srinivasa Aiyar, Erode.
G. Gopalaswami Nayudu, 1st-class Certificate	Care of G. Krishnaswami Nayudu, Pensioned Draftsman, No. 7, Papu Chetti Street, Thennur, Trichinopoly.
V. Subba Rao, 2nd-class Certificate	No. 29, St. Xavier Street, Black Town, Madras.
V. Kodandarama Sastri, 3rd-class Certificate.	Care of Venkatarama Sastri, Kovilvanni, via Ammapet, Tanjore District.
T. Balasubrahmanya Aiyar, 3rd-class Certificate.	Care of R. Subba Aiyar, 1st-grade Pleader, New Street, Madura.

H. D. LOVE, Captain, R.E.,
Principal.

EDUCATIONAL NOTIFICATIONS.

NOTIFICATION.

Fort St. George, January 24, 1891.

His Excellency the Right Honorable the Governor in Council hereby notifies that the following scale of grants has been substituted for that in Article 4, Chapter VI of the Grant-in-Aid Code:—

		School Masters.	School Mistresses.
Collegiate	...	RS. 15	20
Secondary	{ Higher ...	12	15
	{ Lower ...	8	10
Primary	{ Higher ...	6	8
	{ Lower ...	3	4

Note.—Scholarships for European and Eurasian schoolmasters and mistresses will be allowed at rates 25 per cent. in excess of those fixed for mistresses.

J. F. PRICE,

Chief Secretary.

TEXT-BOOK IN PERSIAN FOR THE UPPER SECONDARY EXAMINATION, 1892.

The Director of Public Instruction notifies that the following text-book in Persian has been prescribed for the Upper Secondary Examination of 1892:—

Yusuf Shah Sarraj (S. P. C. K. Depot).
La, Ali-i-Mauzunah (School Book Society Depot).
Anvar-i-Sabaili, Chapter I.

Office of the Director of Public Instruction,
Madras, 22nd January 1891.

H. B. GRIGG,

Director of Public Instruction.

BOARD OF EXAMINERS, TEACHERS' COLLEGE.

The undermentioned gentleman has also been appointed by Government as a member of the Teachers' College Board of Examiners under Article XXIII of the College Rules:—

Mr. J. H. Stone, M.A.

Office of the Director of Public Instruction,
Madras, 23rd January 1891.

H. B. GRIGG,

Director of Public Instruction.

RECOGNITION OF PUBLIC SCHOOLS FOR THE UPPER AND LOWER SECONDARY EXAMINATIONS, &c.

The attention of the heads or managers of colleges and secondary schools, Government, Municipal, and Local, and of colleges and schools under private management, is drawn to the Madras Educational Rules, approved and notified by Government in the Fort St. George Gazette of the 10th February 1891, and they are requested to apply before 31st March next, through the Inspectors of Schools or Inspectresses of Girls' Schools, as the case may be, for the recognition of the institutions under their control under the new rules. None but recognised schools will be permitted to present pupils for the Upper or Lower Secondary Examinations and other public examinations under the control of the Commissioner for the U.C.S. Examinations, or conducted by this department, excepting schools especially exempted under the above

notification. The application should be made in the annexed form. There must be appended to each application (a) a sketch of the site and a plan of the building, unless plans have already been submitted at any time with application for building grant; (b) a declaration signed by the Inspector of the Circle or by a Sanitary officer showing how many pupils each room can permanently accommodate; and (c) a declaration that the latrine provision is suitable.

Lower secondary schools sending up pupils for the Primary School Examination should also fulfil the conditions of recognition, even though they may not be sending up pupils for the Lower Secondary Examination. Upper primary schools which are not on the standing list of results schools, or which have not been admitted to the annual lists for examination for results, should also fulfil the conditions of recognition before presenting pupils for the Primary School Examination. The applications from managers of upper primary schools will be dealt with by the Inspectors or Inspectresses, and a list of recognised upper primary schools will be published for each district in the District Gazette. Managers of middle and primary schools for boys should send in their applications through the Assistant Inspector of the division, except in the Western Circle.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Name of School.	Date of Establishment as an Upper or Lower Secondary, or as an Upper Primary or Lower Primary School, or as a "Special" School or Class.	Name of Responsible Manager.	Number of Classes and number of Pupils in each Class.	Average attendance of Pupils during the first term of the year.	Names and Ages of Headmasters and Teachers.	Their service—(a) in the school, (b) previously.	Examinations passed—(a) general, (b) special. Whether trained or not.	Total area of (a) School building, (b) Offices, (c) Play-ground.	Number of Class rooms and the superficial cubical area of each room, with the maximum number of Pupils likely to be taught in each room.	Condition of building, provision for light and ventilation.	Sanitation, Latrines, &c.	Furniture and Apparatus—(a) ordinary, (b) special.	Condition of (i) Furniture and (ii) Apparatus, under (a) ordinary, (b) special.	Fees in each Department.	The Registers, in the forms prescribed, maintained.	If Primary Schools, exemption sought.	Recommendation of Inspector of Schools of Circle.

Declaration.

I, the responsible Manager of the above school, declare that the school fulfils all the conditions specified in section * of the Madras Educational Rules, and I promise to comply with all the conditions relating to the recognition of schools affording

* Managers of schools falling under II, III or V, as the case may be, will enter the number of the section under which the application is made.

public instruction which are laid down in the Madras Educational Rules, including those relating to inter-school rules.

N.B.—This declaration is not required from the heads of Government (Provincial) Schools.

Manager.

Office of the Director of Public Instruction,
Madras, 16th February 1891.

H. B. GRIGG,
Director of Public Instruction.

UNIVERSITY OF MADRAS.

The following alterations in the By-laws, which have been adopted by the Senate and sanctioned by His Excellency the Governor in Council, are published for general information:—

By-laws 1, 87, 88, 94 and 104.—Omit the word "April" to insert the word "August."

By-law 185.—Omit the words "1st November" to insert the words "30th June."

(By order.)

Senate House, 20th January 1891.

W. H. WILSON, Ph.D.,
Registrar.

MIDDLE SCHOOL EXAMINATION, MAY 1890.

ISSUE OF CERTIFICATES.

Candidates who passed at the late Middle School Examination are hereby informed that their certificates will be issued, as under, on or after the 10th proximo.

2. Such passed candidates as appeared for the examination as "pupils" will receive their certificates through the Head Master or Head Mistress of the school they appeared from.

3. All other passed candidates should apply for their certificates to the Collector of the district in which they were examined. Private candidates examined in the province of Mysore should apply to the Director of Public Instruction, Bangalore; those examined in Travancore, to the Resident of Travancore; those examined at Mercara, to the Head Master, Central School, Mercara, and those in Haiderabad, to the Director of Public Instruction, Haiderabad.

(By order.)

Office of Comr. for the U. C. S. Examinations,
Madras, 24th January 1891.

E. H. ELLIOT,
Secretary.

APPOINTMENTS.

Fort St. George, February 24, 1891.

No. 7.—Under section 6 of Act XXVII of 1857, His Excellency the Governor in Council is pleased to nominate the undermentioned gentlemen to be Fellows of the University of Madras, namely:—

The Honorable Mr. Justice Wilkinson, Pembroke College, Oxford, Judge of the High Court of Judicature, Madras.

Colonel John Pennycuik, R.E., Chief Engineer and Secretary to Government, Public Works Department.

Mr. H. O. West, M.I.C.E., Deputy Chief Engineer, Madras Railway.

Mr. E. W. Stonev, M.I.C.E., Assistant Engineer, Madras Railway.

Mr. H. G. Wedderburn, M.A., Balliol College, Oxford (Barriater-at-Law), Administrator-General.

Mr. H. J. Stone, M.A., King's College, Cambridge, Professor of History, Presidency College, and Acting Principal of the Kumbakonam College.

M.R. Ry. A. Sundaram Pillai, Avargal, M.A., Madras University, Professor of Philosophy, Maharaja's College, Trivandram.

Major A. W. Smart, R.E., Executive Engineer, P.W.D., and Acting Principal of the College of Engineering.

J. F. PRICE,
Chief Secretary.

List of Subscriptions received by the Superintendent, L. A. Press,
Madras, on account of the "Journal of Education," from
1st to 28th February 1891.

	RS.	A.	P.
Mr. C. V. Lakshmi Narasimha Iyengar, Koligal ... for 1890	5	8	0
Chairman, Municipal Council, Cuddalore ... do.	5	8	0
Head Master, Municipal High School, Bellary ... do.	4	8	0
Chairman, Municipal Council, Coimbatore ... do.	5	8	0
Manager, Sentamil Vidyasala, Poraiyur, Tranquebar ... for 1891	4	8	0
Head Master, Feeder Middle School, Madurai ... do.	4	8	0
Rev. M. Brown, Elore ... do.	4	8	0
Head Master, C. S. M. High School, Vellere ... do.	4	8	0
Rev. J. R. Stillwell, Samukotta ... do.	4	8	0
Mr. S. Shanmuga, Bangalore ... do.	4	8	0
Rev. A. A. Dignum, Salem ... do.	4	8	0
S. Stephen, Esq., Tirupati ... do.	4	8	0
Head Master, Church of Scotland Mission Middle School, Arkonum ... do.	4	8	0
Do. do. Sholingher ... do.	4	8	0
H. H. Martandavarma, Sripadam, Trevandrum ... do.	4	8	0
Principal, Hindu College, Tinnevely Ry Station ... do.	4	8	0
Head Master, L. F. Normal School, Rajahmundry ... do.	4	8	0
T. Donham, Esq., Madras ... do.	4	8	0
Lady Superior, Presentation Convent, Madras ... do.	4	8	0
Honorary Secretary, Somasundram Library and Reading Room, Secunderabad ... do.	4	8	0
Head Master, High School, Cuddapah ... do.	4	8	0
Mr. P. Suryanarayana Iyer, Ettapuram ... do.	4	8	0
Manager of the S. P. G. Middle School, Tiraiyar ... do.	4	8	0
Head Master, High School, Kurnool ... do.	4	8	0
Chairman, Municipal School, Cuddalore ... do.	4	8	0
Chairman, Municipal Council, Coimbatore ... do.	4	8	0
Mr. B. Suryanarayana Moorthy, Chatrapur ... do.	4	8	0
Rector, St. Xavier's College, Calcutta ... do.	4	8	0
Rev. E. C. Studder, Arni ... do.	4	8	0
Head Master, Brecks' Memorial High School, Ootacamund. ... do.	4	8	0
Rev. J. E. Webster, Negapatam ... do.	4	8	0
Mrs. N. Schmidt, Head Mistress, Christ Church Girls' School, Nellore ... January to June 1891	2	8	0
Manager, C. M. S. Middle School, Dummagudiem (in part) for 1891	2	4	0
Mr. S. Ramasawmy, Head Master, S. R. Middle School, Enangudi ... (do.) do.	2	4	0
G. B. Harpathack, Esq., Parbani ... (do.) do.	3	2	0
Head Master, Congress High School, Madanapalli January to June 1891, and 1 Copy April 1890	2	14	0
Rev. M. Brown, Elore ... for January 1889	0	6	0
Messrs. Haroon Sait Brothers, Madras ... for October 1889	0	12	0
J. Bertho, Esq., Cuddalore ... for December 1890	0	8	6
Mr. T. S. Govinda Bhutgoswamy, Tiruvadi ... for January 1891	0	6	0
Mr. V. Ramasawmy Iyer, Hosur ... for November 1890	0	8	0

Rs. ... 158 0 6

The Journal of Education

Madras

Vol. V.]

APRIL 1891.

[No. 4.

RECOGNITION OF SCHOOLS.

Close on the heels of the publication of New Madras Educational Rules, the Director of Public Instruction has issued a Notification, dated 13th February 1891, calling upon the Managers of Colleges and Schools to make early application for recognition under Section II of the Rules. The new Rules and the Director's Notification will be found on pp. 129 and 141 of our March issue, and we desire to call the attention of all Managers and Headmasters to them.

It will be seen that not only are the Rules stringent but the Director's requirements are even more so, since, along with the application for Recognition, an Institution has to send in minute details regarding its past and present state, a sketch of its buildings, a declaration signed by the Inspector of the Circle or by a Sanitary officer showing how many pupils each room can permanently accommodate, and a declaration that the latrine provision is suitable.

We have reason to believe that it is the Director's intention to work the new Educational Rules with considerable severity, especially as to recognising schools which are commonly spoken of as "Adventure schools." Free trade is an excellent thing in its way, but in education it means, as indeed it does elsewhere, a lowering of the standard all round. It is time that severe steps should be taken to sweep away the enormous number of schools whose only claim to exist is that they afford means of subsistence to a large

number of persons, who, we may reasonably presume, cannot in most cases make a living by any other lawful calling.

We have little doubt that, if the proposed alterations in the University By-laws relating to the Matriculation Examination are carried in the Senate, and more especially that portion of proposed by-law 272 which says "application for the recognition of a high school must be made to the Syndicate by the responsible authority of the school and *must be accompanied by a declaration that the school complies with the above rules and that it is recognised by the Government of the Province or State in which it is situated,*" we shall in the course of another year or two see an immense improvement in the condition of old standing and well-conducted Institutions, and a corresponding improvement in the quality of the candidates sent up for the University Entrance Examination.

Nor will Upper Secondary education alone be benefitted by the strict enforcement of the Educational Rules. In the Director's Notification there is the following very significant sentence:—"None but recognised schools will be permitted to present pupils for the Upper or Lower Secondary Examinations and other public examinations under the control of the Commissioner for the U. C. S. Examinations or conducted by this Department, excepting schools especially exempted under the above Notification" (the Madras Educational Rules). If these words mean anything they mean that all schools, unable to show that they are well-conducted and *needed where they exist*, are to receive exceedingly drastic treatment. We entirely approve of the Director's Notification, and we hope to see and to hear of the speedy closing of numerous schools which are now being worked to the obvious injury of much older and better Institutions and to the very serious detriment of sound education.

CHANGES IN THE MATRICULATION AND F.A. EXAMINATIONS.

On the 4th February 1889, a Committee of the Senate was appointed to consider the whole question of the Matriculation Examination with special reference to the Report of the Committee of the Senate upon the proposed High School Examination, since instituted under the name of the Upper Secondary Examination. The Committee appointed on 4th February 1889 submitted its

report in February 1891 or just two years after date. If its scheme and recommendations are not such as the Senate can adopt without much further discussion, it is certainly not because of any undue haste on its part. In our view the scheme is a well-considered one worthy of adoption by the Senate almost in its entirety. We strongly deprecate men who are not specialists wasting the time of the Senate in fruitlessly discussing points they know practically very little about. The Committee of 1889 was composed of members* of the Senate thoroughly competent to deal with the question in all its aspects, and there is not, we venture to say, a practical educationist in the Presidency who is not prepared to accept the scheme almost as it stands. In some introductory remarks to their recommendations the Committee say,—

"The most important alteration recommended by your Committee is the extension of the principle of affiliation, already existing in the case of colleges, to high schools, so as to exclude from the entrance examinations, except in special cases, all candidates who have not studied in a recognised high school during the year in which they appear for the examination. This recommendation is embodied in the proposed new by-laws 134 and 135, whilst the rules relating to recognition and the mode of applying for recognition will most appropriately be placed before by-law 272, which contain the rules of affiliation. The conditions of recognition are substantially those drawn up by the Committee appointed by Government to revise the Departmental Standing Orders, compliance with which, that Committee has recommended, shall be required in the case of every school which sends up pupils to a departmental examination. Your Committee has thought it advisable to make slight changes in these rules in order to adapt them to the requirements of the University, and recommends that, in the form in which they are presented to the Senate, fulfilment of these conditions of recognition be required from every high school which sends up candidates to the Matriculation examination. Other alterations recommended by your Committee which deserve notice are the abolition of the English text-book, published annually by the University, and the removal of the restrictions imposed by the present by-law upon the examiners in Arithmetic, Physics, and Chemistry. A majority of your Committee is of opinion that the former change will conduce to a better knowledge of English among candidates for the Matriculation examination, whilst it thinks that it may suitably be left to the Syndicate to instruct examiners to avoid setting

* Rev. Dr. Miller, Mr. Ranganadhan Mudelliar, Dr. Duncan, Dr. Wilson, Mr. Michie Smith, Rev. J. Cooling, Mr. Stuart, Mr. S. Seshayya, Mr. Adam, Rev. J. Foley.

questions of a particular description whenever the necessity for issuing such instructions arises."

On the 6th November 1890, the whole question of the reform of the First Arts Examination was also referred to a Committee consisting of the following Fellows: Rev. Dr. Miller, Mr. Ranganadhan Mudelliar, Dr. Duncan, Rev. G. M. Rae, Mr. Grigg, Dr. Wilson, Mr. Justice Shephard, Hon. Mr. Bliss, Mr. Michie Smith, Mr. Stuart, Mr. Adam, Dr. Bourne, Dr. Thurston.

This Committee, in obedience to the request to report at the earliest possible date, have lost no time in submitting their recommendations. In their introductory remarks they say:

"The most important of the alterations recommended may be summarised as follows:—

1. The reduction of the number of papers on English Text from two to one, with the addition of a paper of one-and-a-half hour's duration on English Composition, and another of half-an-hour's duration on Translation.
2. The omission of the eleventh book of Euclid, and the substitution of a two-hour paper in Algebra, a two-hour paper in Trigonometry, and a three-hour paper in Geometry for the two three-hour papers at present prescribed in these subjects.
3. The omission of Logic.
4. The introduction of Physiography as an alternative subject to Physiology, and the definition of both subjects by means of syllabuses.
5. The omission of the Histories of Greece and Rome.
6. A redistribution of the marks assigned to the several subjects.
7. Certain alterations in the conditions of passing.
8. Alterations in the form of certificates qualifying for admission to the examination, in order to bring them into conformity with by-law 145."

We think the proposed By-laws, which have been very carefully drawn up by the Committee, show a thoroughly practical knowledge of the present defects of the F.A. course and of the means that should be taken to remedy them. We hope that the alterations in the By-laws will receive the speedy approval of the Senate and that something will be done for the students of 1891 in the way of lightening the burden they have to bear. To be relieved of Logic and Ancient History they would, we are sure, gladly suffer the loss of the money they may have expended on text-books in these subjects. We propose returning to the discussion of these examination schemes when we are in possession of the Senate's debates and resolutions.

THE GOVERNMENT REVIEW ON THE PUBLIC INSTRUCTION REPORT FOR 1889-90

We have before us at last the G. O. on the report on Public Instruction for the year 1889-90. The report was submitted on the 21st November 1890, and the review is dated 11th March 1891. Considering that the Government has taken nearly four months to write a review of 12 pages, it is anything but reasonable to expect the Director to submit his report, which runs to nearly 175 pages in type with elaborate statistical tables containing more than 50 pages, within six months. We trust that this fact will be taken into consideration by Government when next the usual complaint is made about the late submission of the report. We, however, agree with Government in thinking that the report is far too long and that the remarks on individual schools should be relegated to an appendix.

Government seems to be satisfied on the whole with the general progress in educational matters during the year under review. The year 1889-90 closed with 20,512 schools and 600,551 pupils, the figures for the previous year being 18,931 under schools and 552,152 under pupils. It is true that the inclusion of private institutions gives a somewhat exaggerated idea as to the progress made, but it must be remembered that the inclusion of the statistics relating to this class of institutions only affects the figures of boys' schools and not those of girls' schools; and Government has noticed that the increase in the case of girls' schools during the year—33 per cent. against a total advance of 32 per cent. under boys and girls—has been particularly marked.

We consider that undue importance is attached by Government to particulars relating to pupils reading or not reading printed books. The figures of the Department are by no means reliable. The stationary character of Upper Primary education is, however, matter for serious consideration, and Government has overlooked this point. In 1885-86 the proportion of pupils in the Upper Primary stage was 6·8; in 1889-90 the proportion was only 5·5.

The low proportion of success in the various University and Public examinations is looked upon as the most unsatisfactory feature

of the report. We are sorry that we cannot agree with Government in thinking that this is an adequate test of the quality of the instruction imparted in colleges and schools. Government need not be reminded that there is such a thing as capriciousness in examination. The results of the Primary Schools examination, which was held for the first time during the year, are, however, pronounced by Government to be satisfactory.

There was an appreciable increase in the number of normal pupils under training, the number having advanced from 1,039 to 1,215, and, what is more encouraging, trained teachers are to a very great extent being replacing untrained teachers. During the year under review the proportion of teachers holding Ordinary and Normal certificates in Primary Schools advanced from 16 to 21·8 per cent. Government admits, however, that the training given in Board Normal Schools is not satisfactory. "The limited funds at the disposal of the Local Boards and Municipal Councils," runs the G. O., "render the provision of efficient establishments a matter of difficulty, and the question of transferring all Normal institutions to the charge of the State is receiving the consideration of Government."

There has been a marked increase during the year in the number of pupils in industrial schools, though the increase in the strength of industrial classes in schools for general education has not been very rapid. Government fears that these technical classes are too often opened without due consideration and without proper provision for efficient instruction, and "that the effect of this and of the want of any real interest on the part of those managing them is that, after a brief existence, they languish." There is a great deal of truth in this statement, and we are glad to find that Government has taken steps to prevent premature opening of technical classes in connection with Board Schools.

The rapidity with which female education has been advancing during the last five years has received the special attention of Government, while all pupils taken together have increased by 57·7 per cent. within the last quinquennium, the corresponding figure in the case of girls is no less than 142 per cent. We are of opinion that this advance is due chiefly to the efforts of the special female inspecting agency, which is a unique feature of the educational policy of the Madras Government. The proportion of pupils in the

higher stages is, however, still very insignificant. In the Upper Primary stage the proportion is only 4·5 per cent.; in the Middle 3 per cent., and in the High 3 per cent., and as the Government remarks, the total "number under instruction, 78,344 in all classes of institutions, is still the merest fraction of the female population of school-going age."

We hope to be able to give the G. O. and extracts from the Director's report in our next issue.

Our remarks on the finance of education must also be reserved for the May number.

THE DOVETON INSTITUTIONS.

The Annual Meetings for the distribution of Prizes at the Doveton College, Madras, and at the Doveton Girls' School were held towards the end of last month. The new Principal of the College, the Rev. E. T. Davies, M.A., made a fairly sensible report considering that it was on work with which he had had nothing to do, and that he is quite fresh to Indian work. He is a new broom, and tells the public he is sweeping and means to sweep very clean. He finds the text-books in use 'unscientific.' We shall be very glad to have our readers supplied by Mr. Davies with a list of 'scientific' text-books. Mr. Davies is sanguine. He is setting his face against cribs and cram books (all very right and proper), but we fear he will not find his task so easy a one as he seems to think. We shall be prepared to listen more attentively to Mr. Davies this time three years. At present things at the Doveton are all *couleur de rose*, though the *strength* does seem to have gone down rather than up. We have followed the career of all the Principals from Mr. Halley downwards, and have little faith in the rose-coloured morn. Mr. Davies's first months of office have already been marked by a dispute over the award of the Carstairs' Medal. Had the late Principal been consulted and his advice taken, such a dispute could never have occurred. We agree with Mr. Davies in thinking that in the circumstances it would have been proper for the Committee to present Lawrence Parsons with a second Carstairs' Medal. At the same time we approve of the award of the medal to Hart.

Miss Keely, at the Prize Distribution of the Girls' School, made an excellent speech on the Education of Women. It was apparently meant as a counterblast to Dr. Miller's recent speech on the same subject. Both speeches deserve very careful attention. For our part while we think it would be well to differentiate the instruction given to men and women, we hold with Mrs. Keely and those who say 'if women can win honours in the same field as men, by all means let them.' We would not place any obstacles in the way of women, but would freely throw open to them the doors of all our Universities. We hope yet to see the day when the old Halls of Oxford and Cambridge shall fulfil the vision in the *Princess*.

THE LATE LIEUT.-GENERAL MACDONALD.

As the news of the death of the late Lieut.-Genl. Macdonald reached us last month just as we were going to press, we were not in a position to notice the sad occurrence in our columns. The news, we are sure, has been received with the deepest regret by the large circle of his friends and especially by those Madras Educationists who were connected with him when he was at the head of the Educational Department. Colonel Macdonald was one of the most distinguished officers of Government. In 1875 he was appointed Director of Public Instruction in succession to Mr. Eyre B. Powell, C.S.I., and he continued in office till the year 1880. Before taking charge of the Educational Department he was at the head of the Registration Department. Colonel Macdonald it was who organized this department. As Director of Public Instruction he did much to improve higher collegiate education. Many of the Government Provincial Colleges, all of which with the exception of two have since been abolished, were opened during his time. His policy with regard to aided education was often criticised, but on the whole he did much to encourage private enterprise. He retired ten years ago and after his return to England always took the greatest interest in everything connected with India. He was a most active member of the National Indian Association and contributed several valuable articles on Indian questions to the *Indian Magazine*. He died on the 3rd of February after an illness of a few weeks.

THE USE AND ABUSE OF EXAMINATIONS.

No subject, nowadays, is more discussed than that of examinations. Papers and periodicals teem with it, and the present number of the Journal is no exception to the rule. None the less we cannot refrain from quoting two references to this important subject which have appeared in the Madras press since our last issue and which have suggested the present article.

In the Report of the S. P. G. Theological College, Madras, for 1890, the words of one of the English examiners are quoted:—"The impression left on my mind is, that they (the Indian students) chiefly excel our English students in *retentiveness of memory*. When they have to answer new questions, not likely to have been discussed in Lecture Room—"problem work as we say in our Mathematical examination, not 'Book-work,'—they have ordinarily shown that they have but little general knowledge of their own to fall back upon." The Rev. A. Westcott, the Principal of the College, and the son of the scholarly Bishop of Durham, finds the reason for this, and which he expresses in terms of righteous indignation: "The whole system of so-called Education in India is nothing but cram—and so palpably cram, that every unprejudiced new-comer stands aghast in the face of this gigantic educational fraud." About the same time that this Report was issued, there appeared in a leading daily paper some account of the new scheme for the F.A. Examination which a Committee of the Senate has had under consideration, which scheme we believe the Senate has accepted. In the opinion of our contemporary, "the object of the Committee has been in the main to burden the memories of the students less and bring out their thinking capabilities more, to give less scope for cramming and afford them more room for the exercise of their originality." Things then have reached that satisfactory pass when the abuse of examinations is publicly denounced, and an influential examining body acknowledges the evil and does its best to remove it. Without abating by one iota the denunciation of the abuse of examinations, let us consider the advantages derived from a proper use of them.

Taken in a general sense, examination is the foundation of all good teaching. A good teacher elicits, and does not preach. By judicious examining he discovers exactly what the pupil knows and gives him the unmistakable pleasure of adding to his knowledge by

his own efforts. Hence Socrates was an ideal teacher; for at the same time that he showed men how little they knew by making them define exactly what they did know, he had the faculty of making them both able and eager to increase their stock of knowledge. This is a faculty which native teachers unfortunately seem to possess only to a limited extent. Non-mechanical subjects, such as Geography and History, are not approached by them in a way which would show their own grasp of the first principles of those subjects. The principle of examination and eliciting ought to form an important factor in all good teaching and quite apart from its intrinsic merits would, if teachers would only see it, be the best preparation for the 'Examination' properly so-called.

'Examinations' cannot be dispensed with. They are a stimulus to both the teacher and the taught. They offer a standard—a very inadequate one it is true—whereby the public can estimate the efficiency of the teacher and the aptitude of the pupil. If conducted by able men they show the direction in which the student should pursue his studies, and they open up many issues bearing on the subject which ordinary books do not discuss. Nothing can better illustrate the efficacy of examinations than the remarkable change which has come over Secondary Education in England since the institution of the Oxford and Cambridge Local examinations some thirty years back. Fortunately about the same time that these examinations were established, the Commissions 'came down like a wolf on the fold' of the endowed schools in England. They swept away many abuses and left the ground clear for the Universities to step in. In the end the dual reform has completely revolutionised Upper Middle Class and Lower Secondary Education in England. A new race of schoolmasters had come to the front, able and hard-working men. All schools that have a care for their reputation have submitted to the Local Examination test. A good standard of efficiency in Secondary Education has been set up. The Universities have been brought into closer contact with the schools and by their action have, to a limited extent, created a system of Secondary Education where all was chaos and disorder.

The tendency nowadays, however, is to multiply examinations upon examinations whereby the student comes to think they are the all-important thing in education, while the thought of them hangs like an incubus on the wretched teacher, crushing out any

originality he may have, and with it the untold joy which the educator has in truly educating his pupils. In short, when examinations dominate education, instead of the reverse, they then become an intolerable evil. Unfortunately, the public has deified examinations and has fallen down and worshipped the golden calf. It forgets that examinations are no true test of intellectual development, that they cannot create a scholar, much less a genius, and that in many cases they produce a positive distaste for independent reading and research.

Meanwhile the evil may be minimised. It is too much at present to demand that examiners shall be a body of men specially devoted to the work: but that is what is really wanted. Just as we think the Universities of England should make due provision for the training of Secondary teachers, so also in our opinion should they make it specially worth their while to train men for the no less important duty of examining. They should be men who, being thorough masters of their subject, would rarely formulate questions on matters of pure detail, and certainly would never fail a candidate who knew the principles but not all the petty details of his subject. As regards the papers set, they should be based on the subject-matter of the examination and not on this or that text-book. The questions should be framed in simple unequivocal language. They should deal largely with principles and should always be more in number than the candidate is permitted to answer. Above all, ample time should be allowed for the answers to be written carefully and thoughtfully. This is a condition often overlooked by examiners, with the result that many a well-prepared candidate fails to answer a sufficient number of questions to secure the minimum amount of marks necessary for passing; or else in a state of nervous excitement he rushes from one question to another and thereby does both his knowledge and ability an obvious injustice. To frame a good examination paper requires more ability, knowledge and time than many such bear evidence of.

Here in India, where cramming for examinations is such an unmitigated evil, a remedy might be found in establishing Teaching Universities, as is being attempted at Calcutta and such as the great Universities of England have always been. In such a University as London, the examination is everything, whereas in Oxford and Cambridge it is merely a means to an

end. In these latter places the student comes into daily contact, both academically and socially, with men who are professed masters in their subjects. An hour's private talk with such men over the merits and subject-matter of the student's essay—crude as it may be—is worth more than all the continuous cram for any examination. In the end, by reading, thought, and constant contact with men who are willing and able to be his guides, the student has disciplined and developed his mental faculties in a way which no examination can properly gauge. It seems to us that the broad distinction between the English and Indian student is this—that at the end of his University course an English Honours man is anxious to work further on the lines which his University has so well laid down for him; whereas in India the University examination is the be all and end all of the student's education. So much for the use and abuse of examinations.

NEWS AND NOTES.

LOCAL AND INDIAN.

Dr. E. Thurston has been appointed Lecturer on Comparative Anatomy in the Madras Medical College.

The Secretary of State has telegraphed that a gentleman has been selected as Principal for the new Law College to be opened in Madras.

Mr. J. M. Yelu Pillai, 1st Assistant, Teachers' College, Saidapet, is to be retained in the public service for another year from the 1st April next.

In Primary schools for boys in this Presidency 68.6 per cent. of the teachers hold no certificates whatever, and in Primary schools for girls 50 per cent.

We are glad to find that the question of providing boarding houses for the mofussil students reading in the Presidency College is about to be reconsidered by Government.

In the Punjab University Examinations now being held there are altogether 1,175 candidates, of these 737 are Hindus, 300 Mohammedans, 24 Christians and only 104 Sikhs.

Dr. John Bradshaw, Inspector of Schools, Central Division, who was due in Madras on the 6th of this month, has been granted six months' extension of leave on sick certificate.

Punai Haridas Sastri, M.A., Director of Public Instruction in the Joypore State, has been elected a Fellow of the Royal Society, London, and a Member of the London Mathematical Society.

"Physical education," says Government, in reviewing the report on Public Instruction, "appears to be progressing satisfactorily and to have taken a hold which will lead to its speedy development."

Government has sanctioned the appointment of temporary Sub-Assistant Inspectors of Schools in the Calicut and Tuticorin Ranges on salaries of Rs. 75 each, to complete the examination of Results Schools.

The question of the raising the standard of the entrance examination of the University of Bombay is, we hear, to be brought up again by Dr. Wellington Grey, the Principal of the Grant Medical College, Bombay.

Mr. F. X. Dacosta of Goa, formerly a student of the Grant Medical College, has passed the Fellowship Examination of the Royal College of Surgeons of England and is the first Indian who has obtained that qualification.

We understand that a Calendar for the Presidency College is in active preparation and will be issued shortly. The Calendar of the College of Engineering for the year 1891 has already been published. If the Teachers' College were also to issue a Calendar it would be found very useful.

Plans for the houses for the Principal and Vice-Principal of the Teachers' College, Saidapet, have been finally approved and the buildings will soon be erected. This must prove a boon to the students, as the Principal and Vice-Principal will thereby be enabled to get into closer touch with them.

Government has approved of the holding of the Primary School Examination in Native States. Arrangements will be made to hold the Examination in Travancore and Cochin. The Primary School

Examination is evidently becoming extremely popular. We hear that the number of candidates for the Examination of 1890-91 was 18,000.

The leave granted to Mr. H. G. Gould, Professor of Dental Surgery, has been extended to a further period of three months. The course in Chemistry has been held in abeyance till the next year. Surgeon J. L. VanGeyzel, M.B., Professor of Chemistry, has proceeded on eighteen months' furlough to Europe, his place is taken by Surgeon-Major T. H. Pope.

The London Mission High School, Bellary, known as the Wardlaw Institution, has recently been affiliated to the Madras University as a Second-grade College. Mr. J. P. Cotelingam, M.A., the Principal of the Cuddalore College, has been appointed Principal, and enters upon his duties at the end of March. A Junior F.A. class has been opened, and a Senior class will be commenced next year.

In this issue will be found Dr. D. Duncan's excellent Convocation address. It is, in our opinion, about the very best address the graduates of the University have had the pleasure of listening to for many a long year. We commend it very heartily to the attentive study not only of all those who were present at Convocation but of all graduates and undergraduates, nay, of all native gentlemen who can read and understand the very excellent advice it contains.

The Government Commissioners on Technical Education, N. W. Provinces, visited the Agricultural and Teachers' College, Saidapet, on the 10th ultimo. The Commission was composed of the following gentlemen:—Messrs. Wickes (Secretary to Government), White, (Director of Public Instruction), H. C. Werness and Izat. They were accompanied by H. B. Grigg, Esq., Director of Public Instruction, and at the conclusion of their visit expressed their great satisfaction with all they had seen.

H. H. Martanda Varma, Second Prince of Travancore, passed the B.A. Examination held in January last and thus possesses the rare merit of being the first among the Native Princes of India, belonging to a ruling family, to break through the conventionalities of royalty and enter the arena of intellectual competition for University honors. H. H. is only 19 and began his studies in his optional subject only after passing the Language Branch Examination in November 1889. He thus finished his course in his optional subject within a year.

There is a scheme on foot to start a School of Music in Madras. We wish the proposed institution every success, and trust that it may soon be an accomplished fact. Music is one way in which the education of women may be differentiated from that of men, as Dr. Miller has pointed out. The acquisition of a sound knowledge of French and German, instead of a smattering of Latin is, in our opinion, another way, and a way provided for by the University, in whose curriculum Music at present finds no place. Why should it not find a place in a University curriculum?

Students for the Degree of Licentiate in Teaching, or for training in the Teachers' College, are admitted between 15th and 31st January or between 15th and 31st July. The ordinary course is 18 months, but graduates and teachers of 5 years' experience may be admitted for a shorter term. The stipends are as follows:—For the *Southern and Central Circles* Graduates Rs. 15, F.As. Rs. 12, and Matriculates Rs. 8 per mensem; for the *Northern and Western Circles* Graduates Rs. 20, F.As. Rs. 15, and Matriculates Rs. 8. A student can, we believe, easily live on 10 rupees a month.

We have received the Report of the Allahabad High Schools for 1890. These Church of England Schools for Europeans and Eurasians seem to be admirably managed. From the Honorary Secretary's Report we learn that "Miss Bailey, under whom the school has so well maintained the traditions of the past, has been confirmed in the post of Lady Superintendent" of the Girls' School Branch. Miss Bailey is the sister of Miss Emma Bailey, now in the Senior F.A. Class of the Devon College. She herself was educated in the Devon Girls' School under Miss Keely, and subsequently underwent a course of training at home or Whitelands.

The revised scheme of the Senate of the London University for its reconstitution as a teaching instead of a mere examining body, seems to meet with any thing but approval. Our valued London namesake, in an article on the scheme headed "A University in and for London," says: "The problem is an insoluble one, and each scheme has been arrived at by dealing with certain of the factors to the neglect of the others. The last, which is a complete reversal of the penultimate scheme of June 1890, is more of the nature of a compromise, and the probable result will be its rejection, not by one or two, but by all of the parties concerned. Already the London Colleges have rejected it, and the Provincial Colleges have begun to express their dissatisfaction."

LITERARY AND GENERAL.

Indian Sketches and Stories of Native Life is the title of an interesting book by the Rev. J. Ewen, who was for ten years a Medical Missionary in India.

Mrs. Humphry Ward, the celebrated Authoress of *Robert Elsmere*, is about to publish a new book, which it is understood she intends naming "David."

School gardens, of which there are more than 6,000 in Austria, are being laid out in different parts of Germany. Their object is to give methodical instruction in the cultivation of fruit trees, and to be used in the teaching of botany.

Messrs. Cassell & Co. have issued on an entirely new plan Maps for school use called the Map-building series. These Maps have been compiled and prepared by Mr. H. O. Arnold-Foster. They are divided by squares, the side of each representing a certain number of miles.

The proportion of female to male teachers in Prussia is very small. Of the 68,765 elementary teachers, only 7,869, or 11 per cent., are female teachers. In the private middle schools (private lower schools need not be taken into account) 2,626 of the 3,459 teachers are women. Protestant Germany seems to have a much greater dislike to entrust women with teaching than Catholic Germany. In the whole of Prussia there are only 442 female teachers in the Protestant village schools, whereas over the same area there are 2,304 women teaching in Catholic schools.

An important work has lately been issued in the shape of a new edition of *Webster's Dictionary*. We understand that this edition has been in progress for ten years; that a staff of 100 workers has been employed on it; and that no less than £60,000 was spent on it before a single copy was printed. The last revised edition, which has been before the public for ten years, has been considered by many people as the best Dictionary for general use; but if the above assertions are true—and we have no reason to doubt them—this edition must be a vast improvement on it.

There has been a decrease during the past year in the numbers of students attending the German Universities, especially in the departments of philosophy and natural science. It is the first annual decrease since 1872. There are now 28,711 University students in Germany. Berlin

is easily first with the large total of 5,527, and Rostock is last with 371. Leipzig has 3,458 and Munich 3,332. Spite of the decrease, however, there is a far larger proportion of University students in Germany than in England. England, too, has no University like Berlin, which is now the foremost school of learning in the world.

The Earl of Meath has introduced into the House of Lords a Bill for the promotion of physical education in elementary schools. It proposes to impose on the school authority for every elementary school in any populous town the duty of making fit provision, to the satisfaction of the Inspector, for the instruction and practice of all scholars of both sexes in physical education and exercises connected therewith. By "physical education" is meant any system of recognised physical exercises or drill (which may include swimming) which shall receive the approval of the Education Department and of the school authority.

A blind girl Miss Aston, not yet seventeen, has matriculated at the Melbourne University. She has been blind from infancy, but is said to be uncommonly bright and intelligent, as well as pretty. Among other subjects, Miss Aston passed in French, Latin, Arithmetic, and Algebra. Special arrangements had to be made for her examination. She was accompanied by an assistant teacher from the school for the blind where she was educated for eight years. The assistant transcribed her answers, written in Braille, into the ordinary characters. Miss Aston is in addition to her other acquirements, an excellent musician, and is said to be deeply anxious to earn her own living.

Miss Philippa Fawcett is threatened with a rival in Australia. The Mathematical exhibition at the Melbourne University has just been won at Matriculation by Miss Nellie Whyte, a young girl but just 18 years old, whose teachers declare her to have wonderful genius for Mathematics. Miss Nellie Whyte comes of a talented family. Her father, Mr. Patrick Whyte, M.A., was for many years headmaster of a model school. Her eldest sister, Miss Bessie Whyte, took the degree of M.A. last year, and the second sister, Miss Maggie Whyte, passed for her fourth year's medicine in November, never once having had to go up for the supplementary examination since she began her course.

We learn that an Inspection Code for the Madras Educational Department is in course of preparation, and will soon be submitted to Government. Speaking of the new English Educational Code, the London Journal of Education says, the revised Instructions to Inspectors (which

are now issued with the New Code) are more admirable in tone and spirit than even last year's were. They make clearer than ever the determination of the Department to grant managers and teachers full liberty to do the best they can for every individual child; they show a broad and liberal view of the purposes of education, together with an intimate knowledge and most intelligent discrimination of school methods.

In Belgium, anybody, whether his true vocation be butcher, baker, or candlestick-maker, can open a school. In this respect Belgium and England and, we may add, India, stand on common ground. The parents have the right to send their children to whatever school they like; or, if they prefer it, to no school at all. In this respect the predilections of English parents are less indulged. In the words of Deputy Jacob: "The right to remain ignorant is a precious right," and it is taken advantage of in Belgium in no small degree. Among the working classes 80 per cent. can neither read nor write. The percentage of those who can read and write for the whole country amounts to only 15.

Mr. Arthur Sidgwick, in a recent lecture at the College of Preceptors on "Language Teaching," gave a fresh illustration of the unwillingness of the headmasters of public schools to let training count for much in their choice of colleagues. A master, who had taken only second-class honours, had filled a temporary vacancy in a lower form with such ability and success that the headmaster was besieged with requests to make the appointment a permanent one. "I cannot afford," he replied, "to throw away an appointment." This reminds us of Mr. Quick's story about the oculist who, when complimented on his skill as an operator, exclaimed, "Ah! but I spoilt a hatful of eyes first."

The human mind, like the body, requires not only food, but a variety of food, for its proper nutriment. It is evident that the actual amount of the variety will depend, to some extent, upon the assimilative or digestive power of the mind itself. There is always a danger of teaching less by trying to teach more. . . . Modern schoolmasters have been too eager for results. They have counted up the successes of their pupils at twelve, or fifteen, or nineteen. But a success at twelve is not worth having if it implies a failure at fifteen, nor a success at fifteen if it implies a failure at nineteen, nor a success at nineteen if it implies a failure in after life. Here lies the danger of courting premature development by competition for scholarships, or by other means. Nature exacts a penalty for haste as well as for disobedience. She forbids the fruits of teaching to be forced.—Dr. Weldon in the "Contemporary."

86

Dr. Schmidt-Rimpler, the well-known Gottingen oculist, has been asked by the Cultusminister von Gossler to draw up a list of requirements for diminishing the shortsightedness so prevalent in German schools. Dr. Schmidt-Rimpler recommends—(1) that teachers must acquire some knowledge of school hygiene; (2) that a medical attendant be attached to the school staff, and periodically inspect not only the school, but individual pupils; (3) that printed instructions be sent to the parents to inform them of the best position of the body for their children, especially with reference to writing, while engaged in the preparation of home-lessons; (4) that afternoon school be abolished, as far as is possible, so that the children may have plenty of exercise in fresh air; (5) that the amount of home-work be diminished, especially with regard to written tasks; (6) that the school course be not allowed to extend over too many years.

The Report of the Froebel Society for 1890 shows advance in nearly every direction. The Society has been incorporated under the Companies' Act, the initial expenses of incorporation having been defrayed by Mrs. William Grey. Examinations have been held, under the conduct of the Joint Board, in London, Bedford, Cork, Cheltenham, Croydon, Plymouth, and Skeffield. The number of candidates has risen from 75 in 1882 to 231 in the current year, but the number of certificates gained has not risen in the same proportion. The Council traces the failure mainly to the absence of sufficient opportunities for training, and they welcome the establishment of Mme. Michaelis' Training College in connexion with Miss Emily Lord's Kindergarten at Notting Hill, as supplying this want in the West of London. The demand for trained Kindergarten teachers is largely on the increase, and the Registry of the Society has more applications than it can supply. The one point on which the Council express dissatisfaction is that members and subscriptions have not increased proportionately to the work of the Society.

In view of the measure which the Senate will shortly be called upon to discuss with regard to the creation of new Universities in France, the Ministry of Public Instruction has prepared a very interesting return showing the number of students who at present attend the different French faculties. The total is 16,857, of whom 15,316 are Frenchmen and 1,471 foreigners, as against 9,863 fifteen years ago. Out of this total, 5,843 students attend the faculties of medicine, 4,570 those of law, 1,834 those of literature, 1,590 those of pharmacy, 1,276 those of science, and 101 that of Protestant theology. Rather more than half of these (8,653) are students of the different Paris faculties, and of the 1,271

foreign students 1,078 are in Paris. With regard to the nationality of the foreign students, there are 989 Europeans (313 Russians, 159 Roumanians, and 121 Turks), 201 Americans (of whom 173 come from the United States), 68 Africans (of whom 51 are Egyptians), 12 Asiatics, and one Australian. The great majority of these foreigners are studying medicine, as 907 belong to those faculties, while 240 are studying law, 58 science, 39 pharmacy, 24 literature, and 3 Protestant theology.

The latest report of the Oxford University Extension Delagacy, ending with the last summer meeting, is highly satisfactory. It appears from it that the number of courses of lectures has grown from 27 in 1885-6 to 149 last year, that the number of centres at which lectures were delivered has risen from 22 in the same year to 100 in the last session, that whereas in 1886-7 the average number of students attending the different courses was 2,908, now no fewer than 17,904 receive in the different centres the instruction given. History seems from the return to be the favourite subject—85 courses given upon it; on literature and art 28; on political economy 10. "On August 1889," the report continues, "the second summer meeting of Oxford University Extension students was held in Oxford. It was attended by 1,000 students, and lasted rather more than a month, this period being divided into two parts to meet the convenience of those students whose duties prevented them from being present during the whole meeting." Finally the report acknowledges the receipt of various scholarships intended to enable poor students to avail themselves of the opportunities afforded by the summer meeting.—*Educational Times*.

REVIEWS AND NOTICES OF BOOKS.

ELEMENTARY PRINCIPLES OF CHEMISTRY by H. CHANDRA BANERJI, M.A., Calcutta, published by N. L. Chatterji, Cornwallis Street, Calcutta, 1890. Price 8 annas.

This little pamphlet makes no show of originality, as it consists mainly of verbatim quotations from Tilden's Chemical Philosophy, Remsen's Chemistry, Frankland's Lecture Notes, and Cooke's Chemistry. But it costs only 8 annas, and for those who cannot afford to purchase the English works on which it is based, it will be useful. There are a few problems given at the end after the manner of those given so extensively in Impton's Chemical Arithmetic.

ELEMENTARY SCIENCE LESSONS by W. HEWITT. Longmans, 1891.

This little work contains "a systematic course of practical object lessons." They are of an exceedingly elementary character, and we cannot imagine a child of an age to understand the words used who has not incidentally picked up a knowledge of the most obvious properties of such things as salt, chalk, a glass of water, a burning candle, or a pair of tongs. To dignify such instruction as this with the name of science is an abuse of language. Before going to school an intelligent child will have learnt from its mother, or by mere contact with the world around it, almost all that is told here. If the book is meant chiefly for the guidance of the teacher, it indicates a very low condition of mental power in the teachers of elementary schools to suppose that they need such guidance as is here offered. Here we have dignified with the name of science teaching, for example, what any ordinary child of 4 years of age has learnt in playing with the first two-penny box of colours that its mother has given it—such as the result of mixing blue and red paints. If we judge by the length of the words used the lessons are meant for much older children, and we protest against the absurdity of supposing that the most beautifully systematic teaching of such trifles is of any value in our schools. Technical instruction is the "fad" of the present day, but we do not for a moment believe that pedantic instruction of this kind is of any use as a foundation for technical instruction proper.

THE ROYAL ENGLISH CLASSICS:

1. ADDISON. *Sir Roger de Coverley* (From the "Spectator").
2. GOLDSMITH. *The Traveller. The Deserted Village*.
3. MACAULAY. *Lord Clive. Scenes from his Life*.
4. MILTON. *L'Allegro, Il Penseroso. Lycidas. On the Morning of Christ's Nativity*.
5. SCOTT. *Marmion* (Canto VI).

The aim of Messrs. T. Nelson and Sons (London, Edinburgh, and New York) in publishing this new series of English Classics is a very laudable one. It is "to produce the Works of Standard Authors in portions suitable for use in schools, carefully adapted for Educational purposes, in a handy form, and at a moderate price." We need hardly say any more than that these conditions have been faithfully observed. The 'Addison' takes up 46 pages of text and notes, and 6 pages of introduction. The 'Goldsmith' has the same number of pages of text and notes, and 5 pages of introduction. The 'Macaulay' has also the same number of pages of text and notes interspersed with maps of Indian districts mentioned, in the text, and the introduction takes up 6 pages.

The 'Millon' has the same dimensions. The 'Scott' has 64 pages of text and notes, 14 pages of introduction, a really good map tracing Lord Marmion's route, and a fine plan of the battle of Flodden. The price will be recognized as moderate when we mention that the first four booklets named above cost only three pence each, and the last only four pence. The notes are not so profuse as to render thought and research unnecessary, and though we hardly consider the series suitable as text-books for our Indian students, still we should like to see them freely used for home-reading; and their low price puts them within the reach of very poor students.

SHAKESPEARE. THE TRAGEDY OF KING RICHARD THE SECOND, edited by EDMOND K. CHAMBERS, sometime Scholar of Corpus Christi College, Cambridge. London: Longmans, Green & Co., 1891.

"*Fuisse felix miserrimum*," the Epitaph put by Abbot Feckenham over the tomb of Richard II. in Westminster Abbey, has been appropriately selected by Mr. Chambers as the motto of his edition of Shakspeare's drama dealing with the fate of that unhappy monarch. The volume before us is another of Messrs. Longmans' "Falcon Series" of the plays of the Swan of Avon; and the series promises to be a success. Mr. Chambers' work is sound, trustworthy, and scholarly. In a thoughtful and valuable introduction of 27 pages, he deals with every aspect of the play, and in a way that indicates a man who is full and flowing over with the most interesting features of his subject, and knows how to handle them dexterously. A curious fatality has always hung around revivals of this play. Its reproduction in 1601 alleged to be in support of the rebellious policy of Essex, led to a State prosecution. Nahum Tate's recasting of the play, produced in 1681, was prohibited on the stage, as the audience insisted on taking it in a sense personal to Charles II. and the Duke of York. Another revival in 1739 had to be withdrawn as the grit insisted on identifying the evil ministers of Richard with Walpole, who was just then intensely unpopular owing to his refusal to go to war with France.

The notes in this edition are clear, pithy, and to the point, and leave hardly anything to be desired even for allusion-hunting mind of the Indian Student. A Genealogical Table clears up all intricacies of relationship. An Appendix explains the Legal Proceedings in Scenes 1 and 3 of Act I., and the book has a handy and useful Glossary. The printing is well executed on good paper, and the book is worth a good deal more than the modest sum of one shilling at which each volume in this series is priced.

88

MATERNAL MANAGEMENT OF INFANCY AND CHILDHOOD.

We beg to acknowledge with thanks the above book first published by Mr. Andrew Jesudasan, of the Madras Medical Service. A book of this kind in Tamil supplies a long-felt want in Indian family life. On a careful perusal of its contents we are glad to note that the book deals with infant life in its several aspects in a systematic way. The author has spared no pains in his analysis of the common diseases, to which infant life, especially in this country, is subject and of the causes of such diseases. From his medical experience as a Civil Apothecary, he gives the suitable prescriptions and remedies for the various diseases of young children. As mortality among infants is usually greater than that among adults, we are of opinion that too much attention cannot be paid to this point, namely, the treatment of child diseases, as it will go a long way to preserve and protect infant lives.

As the book is written in a simple style and as it contains practical instructions for the careful bringing up of young children, we feel assured that this excellent little book will find its way into every Hindu house.

Maternity in this country begins very early, and Indian mothers, girls as they happen to be in many cases, are not, from ignorance and want of education, alive to the grave responsibility of bringing up children. We therefore trust that educated girl-mothers, especially those of the present generation, will profit very much by the perusal of this small treatise.

Considering the labour and pains which the author has bestowed upon the production, which contains 455 pages of useful matter, the price of the book, 12 annas per copy, is certainly very cheap.

ACKNOWLEDGMENTS.

We have to acknowledge with thanks the receipt of the following Books, which we purpose noticing in our next issue.

BOOKS.

- CORNWALLIS, by W. S. Seton-Karr, (*Rulers of India Series*). Oxford: at the Clarendon Press, 1890.
- THE EARL OF MAYO, by Sir W. W. Hunter, K.C.S.I. M.A., &c. (*Rulers of India Series*). Oxford: at the Clarendon Press, 1891.
- Notes on Shakspeare's Play of Coriolanus, by T. Duff Barnett, B.A., (London). London: George Bell and Sons, 1891.
- An Elementary Treatise on Mechanics for the use of Schools and Students in Universities, by Rev. Isaac Warren, M.A., Part II., Dynamics. London: Longmans, Green and Co., 1891.

INDUEKKA, a Malayalam Novel, by O. Chandu Menon, translated into English by Damergue, C.S., Ag. Collector of Malabar. Madras: Addison and Co., Price Rs. 2, postage 4 annas.

SHAKESPEARE'S Taming of the Shrew, edited by H. Howard Crawley, (Falcon Series). London: Longmans, Green and Co., Price One Shilling.

FIRST WORK IN TRANSLATION, (Malayalam Edition), designed for the use of High and Middle School Students, by C. V. Subramanya Aiyar, B.A., First Assistant Master, District School, Chittur (Cochin), Part I. Madras: Addison and Co., One Rupee, post free.

THE SCHOOL CALENDAR, with Preface by T. Storr, B.A. London: George Bell and Sons, One Shilling.

SHAKESPEARE'S Twelfth Night and A Midsummer Night's Dream, with Notes and Introduction, by K. Deighton, M.A. London: Macmillan and Co.

MACAULAY'S Essays on Addison, with Notes, &c., by P. T. Srinivasa Aiyangar, M.A., Principal, Hindu College, Vizagapatnam. Madras: Srinivasa, Varadachari and Co.

BRADSHAW'S Anthology: Notes on, by J. Creighton. Madras: V. Kalyanaram Iyer.

BACON'S Advancement of Learning, Book I., with Notes, &c., by F. G. Selby, B.A., Oxon. Madras: V. Kalyanaram Iyer.

MILTON'S Paradise Lost, Book I., edited with Introduction and Notes, by E. Winckler, B.A., Principal, Kerala Vedyasala, Calicut. Madras: V. Kalyanaram Iyer.

DE QUINCEY'S Goethe and Schiller, with Notes, &c., by W. E. Hoare, B.A., Oxford, Vice-Principal, Wesleyan College. Madras: Srinivasa Varadachari and Co.

SCOTT'S Lay of the Last Minstrel, Cantos IV—VI, with Notes, by S. Anantaparyana Aiyar, B.A., B.L., Head Master, High School, Triplicane, Madras: Srinivasa Varadachari and Co.

MILL on Liberty, with Notes, &c., by the same Editor and Publisher. Calendar of the College of Engineering for 1891.

MILTON'S Comus, with Notes, &c., by Robert Harvey, M.A., LL.D., Principal, Maharaja's College, Trivandrum, &c. Madras: Tawker Sadananda and Co.

The Story of India and An Elementary History of British India, by Rev. E. Sell, and Rev. J. T. Lawrence, M.A., Oxon, Vernacular Translations of. Madras: S. P. C. K. Press, Vepery.

Geometrical Deductions, Book I., corresponding to Euclid, Book I., by James Blaikie, M.A., and W. Thomson, M.A., B.Sc., formerly Examiner in Mathematics in the University of Edinburgh. London: Longmans, Green and Co., Price 2 Shillings.

Essays on Educational Reformers, by R. H. Quick, M.A. London: Longmans, Green and Co.

Report on Public Instruction in the Madras Presidency for 1889-90, with Government Order thereon.

MAGAZINES; &c.

London Journal of Education for February and March; The Educational Times for February and March; The Private Schoolmaster; The Boston Journal of Education for January and February; The New York Teacher; The Christian College Magazine for February and March; The Bombay Educational Record for January; Progress for February and March; India's Young Folks; The Punjab Magazine, &c., &c., &c.

ON THE TEACHING OF HISTORY.*

Some months ago a leading provincial journal boldly and emphatically proclaimed that the educational problem was solved at last, that a clue had been discovered which would guide the teacher through all the perplexities of his task, and that there need be no more discussion on methods of training or subjects of study. The basis of this extraordinary statement was a recent announcement on the part of certain City firms, that, in engaging clerks, they would give the preference to such as had obtained commercial certificates in shorthand, book-keeping, indexing, and so forth; these, therefore, were the subjects that masters must teach and boys must learn, and all else, in spite of scholastic prejudice, might be safely neglected as of no practical importance in the battle of life. Now, if this be the right view of the teacher's functions, it is useless to discuss the place of history in an educational course; that would depend on the opinions of employers of labour, and the school-master's duty would be to abandon his "prejudices" and accommodate his teaching to the fluctuations of the industrial market.

But surely education means something very different from this. The teacher, as Plato says, is only indirectly concerned with the practical needs of life; his true task is to develop every latent capacity in those entrusted to his charge, to widen their mental horizon, and thus supply them with ideals that shall draw out all the energy of their being, to enlarge every faculty of heart and soul. What we really teach is not languages, or mathematics, or science, but how to think rightly, to feel rightly, and to will rightly. Grammar, geometry, and physics are not in themselves the main end, but they are the machinery which we employ to obtain the product, the vehicles in which we are carried to our real destination; and, like all means, they must be judged, not by the standard of their intrinsic worth, but by their fitness to secure the end at which we aim. A steam engine may have many advantages as such, but if it cannot draw a train, it is useless as a mechanical appliance and is pulled to pieces or left to rust; so any branch of the scholastic curriculum that does not subserve the great educational end, merely clogs the mind and wastes the time of teacher and learner alike. In fact, in choosing our subjects of study, the question is not, "Will this pay more than that?" but, "Will this train the mind and develop the intellect more than that?" And if it will, we may be sure that it will pay best; our choice, though it may fail to satisfy the "practical" man at the time, will raise the intellectual level of the race and, even in the narrow sense of the word, will be found to "pay" at the last.

* A paper read before the Taunton Branch of the Teachers' Guild.

There is no desire as yet to exclude history from our curriculum, but if we are to teach it rightly, it also must be taught as a means to an end. But it may be questioned whether in most of our schools the study of history, as an intellectual process, does more than train the memory and, to some extent, the imagination; and these are results that could be more readily attained through learning oratory or poetry by rote. And the reason of this is that our conception of history is so often fundamentally wrong. We regard it as a sporadic agglomeration of events, scattered broadcast across the face of time, and only bound together by the tie of order in succession, as a series of facts connected by a long list of dates. And if this is what we mean by history and teach as history, we shall probably overload the mind and perhaps discipline the memory, but we shall not develop the intellect or enlarge the rational powers. But, in truth, history is not projected in Time but in Causality; the connexion between the several members of a series of events is not merely one of succession but one of cause and effect. We ask our pupils when an event occurred, instead of asking them why it occurred; we teach them that one incident followed another, instead of showing them that each is the natural result of what has gone before; we seem to believe that each epoch of our history merely happened to succeed the previous one, whereas it could not have helped following in its turn. History, then, is the science of cause and effect in national and individual life, it is our great illustration of the causal nexus in its practical application, and it teaches us, as Thucydides explains, what effects followed from what causes in the past and, under like conditions, will do so in the future as well. What we have to learn from it is not a long string of facts and the order in which they come, but the great principles which underlie those facts, and the laws which form the bond of sequence between them. In this sense facts are, as Macaulay has said, "the dross of history;" they are found as a constituent part of the natural one, but must be smelted out if we would obtain the pure metal which they disfigure and conceal.

It is obvious that if a teacher takes this view of history and wishes to enforce it on his pupils, a radical change will be required in our methods. But this consideration raises problems which the present writer rather desires to suggest than to appear to solve; still it may be worth while to give some illustrations of the newer aspects which history presents when regarded from this altered point of view. Our constitutional history, for instance, from the eleventh to the sixteenth century depends, in rough outline, on the varying combinations of three fairly equal forces: kings, barons, and people. Under the Normans we have king and barons arrayed against the people, who are consequently disregarded

and trampled under foot; in the time of John and Henry III. barons and people combine against the king, and the result is seen in the great Charter and the beginnings of constitutional liberty; and under the Lancastrian sovereigns we have the last possible combination, king and people against barons, and this is therefore the great epoch of constitutional growth to which the lawyers of the Long Parliament had to look back in their search for precedents to establish the people's rights. Every combination having thus been exhausted, the Wars of the Roses, by eliminating the barons, altered the fundamental groundwork of the previous groupings, and, leaving king and people in direct opposition, could not help resulting in the Tudor despotism, which at any other period of our history would have been simply impossible. A parallel case of the balancing of three forces may be found in the foreign policy of England in reference to France and Spain during the sixteenth and seventeenth centuries. When France seemed strong, Henry VIII. fought for Spain against France, but after Pavia, for France against Spain; and all the perplexities of Elizabeth's shifting moods and sinuous diplomacy are explained when we understand how she had to lean now one way and now another, in order to keep the conflicting Powers in counterpoise. But when Spain had become but the shadow of a great name, Cromwell, by a serious oversight, put all his weight in the scale of France, and the result was so great an accession to the power of Louis XIV. that the two next sovereigns of England were practically his tributaries; while under William III. and Anne the strength of the nation was exhausted in a ruinous conflict with the foe who owed his supremacy to the mistake of the Puritan leader, an error for which we thus still pay in the shape of our National Debt.

These, of course, are very simple instances, but they show a continuity in history of which the modern schoolboy has very little conception, and which many of our text-books totally neglect. But as our course of action all through life depends on our knowing what results will follow from given conditions, it is surely of some importance to study history in such a way as to learn what causes have led to what effects in the times that are past, and to be continually asking why an event took place, or what were the tendencies that counteracted a result which we should have expected to follow. But the teacher's first difficulty is the want of a suitable text-book. Bright and Green have not found their way into our middle-class schools, and are too full for practical requirements: as for the books in common use, I may be permitted to quote from an essay on history by a boy who was nurtured on a popular manual, and who commenced, "History tells us all about kings and queens, and what they did of." Such a boy will have a minute acquaintance with the

adventures of Perkin Warbeck, but no conception of the general character and effects of the Reformation; he will have an accurate knowledge of the wars of England and France, but no notion of the social and economic problems of the time; he will be perfect in his dates, but will arrange all his facts like beads on a string, without any sense of historic proportion, or laws of sequence. But, again, the best of text-books would be of little service while our public examinations remain what they are. The papers set by the College of Preceptors simply swarm with dates and questions about isolated facts, and the Oxford and Cambridge Locals are not much better; and, as all these bodies require a knowledge of the whole of English History, a teacher is practically compelled to cram his pupils, and to devote the time at his disposal to skeleton outlines, and similar abominations. We need not wonder that it is so hard to convince a schoolboy that the historical characters who passed in a confused array before his mind were really flesh and blood, when we remember that he has neither sufficient time, nor adequate materials, to form a distinct and vivid conception of the life and work and environment of any one of them.

In illustrating the laws of sequence that obtain in practical life, history affords a valuable mental training; for it teaches children to think for themselves in tracing an event backward to its ultimate cause, in following its consequences to some distant goal, and in discovering the same law operating under very varied conditions. But the study of history is of no less importance as an emotional and volitional instrument. And, while Thucydides has already been quoted as looking at his subject from a purely intellectual standpoint, we may take Livy as a representative of those historians who make it their aim to regulate the springs of action, and to educate, not the intellect, but the feelings and the will. For his hope was so to portray the stern and simple Romans of early days, that their degenerate descendants should be shamed into some effort to regain the virtues that had long been lost; and he does not hesitate to adopt any legend, however unauthenticated, and even to falsify history, if thus he may further his moral purpose. But while modern writers of the same school are perhaps more scrupulous, Macaulay's dictum still holds good, and from this point of view, too, it is equally true that "facts are the dross of history." The man who, rightly or wrongly, believes in popular government, religious toleration, and the brotherhood of man, because these are the lessons that history has taught him, will cling to his convictions with a firmness of assurance that is beyond the grasp of those who base their lives on similar rules of action, but have them rooted in a less tenacious soil; and even when he has forgotten the facts that formed the groundwork of his opinions,

91
those opinions will remain with him still. The study of the facts is but a means to an end, and that end is a reasoned confidence in the great principles that should underlie and guide our common life.

ARTHUR BAKER, M.A.

THE TEACHER AS A DETERMINING FORCE IN THE LIFE OF THE CHILD.

Not methods of teaching, but the spirit that should pervade the teacher's work, is my subject.

"When a man dies," says Schopenhauer, "a world perishes,—the world which he bore in his head." If the ceasing of each individual life involves so serious a loss, the beginning of a conscious soul-life is a matter of the gravest importance. Those who work wisely with young children come very near to sharing God's own work of creation. See how the whole world, as you now know it, existed in miniature for you in the small circle of home and friends, which surrounded you as a little child! All through life you have unconsciously "oriented" yourselves,—making the East and North come right, by involuntary reference to your early home. The mother makes the man; but close after the mother's influence comes the influence of the teacher through the years of childhood.

How shall the teacher most surely and wisely reach the life of the child for good? The truly successful teacher must be able to put herself in the child's place; to look out on the world through a child's eyes; to comprehend the peculiar difficulties that lie in the way of a child's progress. True teaching, like a legal contract, requires that there be a "meeting of minds." If the mind of the teacher is to meet that of the pupil, the teacher must go more than half way. The child has never known mature life. The teacher has been a child, and to be successful must keep in touch with the pupil's life and methods of thought. It is more reasonable to expect the teacher to go back in his past experience to the child's point of view than to require the pupil to project himself into the unknown, in the effort to fully get the teacher's habit of thought and point of view. All teaching affects immortal souls. *Filia caveat* against the false system of education which would do all the work for the child, would humor every inclination, every passing whim of childhood. Not so is manly fibre made! There is a sense in which the phrase "learning made easy" is the bane of modern systems of education. Put yourself in the place of the pupil, not that you may take every difficulty out of his way, but that you may know what are his real difficulties, and teach him patiently to overcome those difficulties by his own effort.

The narrowness of the circle of childish interests leads intensity and permanence to the impressions received as the child enters upon life. The transition from home life, where the reigning law is love and self-sacrifice, to school life, where the relations with one's equals in age, under the law of equity, begin to be cultivated, marks for most children the beginning of the social life. School life thus fixes very early those relations with others, relations harmonious, or discordant, which are to give color and tone to the entire life of the man or woman whose childish years receive this imprint.

In this school-world the teacher's personality is supreme and dominant. The appeal to nobility in the teacher which comes to every sensitive soul at the sight of a room full of children fixing their eager, receptive, trustful faces upon their teacher, is strong, and gives force to the words "It were better for him that a mill-stone were hung about his neck and be cast into the sea, than that he should cause one of these little ones to stumble."

With this grave responsibility attaching to the teacher's influence what ought we who teach to demand of ourselves? The communication of ideas is the teacher's great work; for this, language is the medium. The teacher must take care how he speaks; he is bound always to be sincere, kind, manly in speech. His own standard of sincerity and truthfulness in the transactions of the schoolroom will have more to do with the pupil's training in regard for truth, than will any formal or stated exhortations. If the teacher systematically colors things in his own favor, if there is an easy oblivion for what tells against himself, and a strong grip of the memory on every point that makes against the pupil, that teacher's real principles as to truthfulness are manifest, whatever he may say when he wishes to "exert an influence." The honest demand and correction of one's own error is the duty of a teacher as well as a wholesome corrective in scholarship or in statement. Sincerity and truthfulness of speech are the first points.

The next point is the use of clear, simple, natural English, and not a strained effort to improve the pupils by the use of "schoolmaster's English." The educating power of language consists in using language which precisely fits and represents your thought, and in invariably having a real thought to present whenever you speak, so that thought and language shall belong to each other.

In these days of "oral teaching," beware of talking on and on in a sweet, modulated, and unmeaning tone, until the younger pupils are drowned in floods of honeyed inanity. In the classroom never speak without intending to,—never speak without knowing precisely what you

mean to say. The gift of tongue without thought is a curse to any teacher. Will you deal carelessly with words and grow wordy, or carefully with thoughts and grow thoughtful?

It is of the greatest importance to put the highest and noblest thoughts before the minds of the young. There is a divine obligation that rests upon the teacher of the young to turn their thoughts toward the noblest ideals of living.

It is the unconscious influence of the teacher which most profoundly affects the life of the pupils. It must be in the daily life,—in the character,—before it can go out upon the young.

There are "induced currents" in the intellectual life. The teacher who will successfully impart knowledge must continually acquire fresh knowledge for himself. To influence man, to shape the destinies of cities and nations, is an ambition fit to engross all man's energies. Japan and Germany are teaching the world with fresh emphasis the lesson recognised by Humboldt a century ago: "Whatever you wish to have appear in a nation's life you must put into its schools." Here lie the vast potentialities of the teacher's work. Let us honor and exalt our profession.—*Journal of Education*, Boston.

A GERMAN GEOGRAPHY LESSON.

The Germans are disposed to over-educate their children. They pay too little attention to the development of the body, and too much to that of the mind. Making due allowance for this tendency, I find much that is admirable in the instruction of the primary and secondary German schools, especially in the best schools of Berlin. I one day obtained a permit to be present at the lesson in geography in the lowest class, the *Sexta*. The pupils were all boys about eight or nine years old. This was the second or third lesson of the school year, and, accordingly, very elementary. The teacher, a man, called up a small boy and asked him pleasantly where he lived. The boy replied that he lived in Ritter Strasse.

"Where in Ritter Strasse?" asked the teacher.

"Number 171."

"Mark on the blackboard the place where your house is. Right. Now, when you started for school this morning, in what direction did you walk?"

The little boy looked for a moment perplexed, and the teacher said: "Did you walk north, south, east, or west?"

"I don't know."

"Then let us try to find out. Was the sun shining when you started from home?"

"Yes."

"Did you have the sun behind you or in front of you, on on your right or left hand?"

"For a while I had it in front of me."

"In what direction did you, then, walk?"

"Toward the east."

"Right. And how long did you walk toward the east? Or did you continue to walk toward the east all of the time?"

"No; only until I turned the corner of Prinzen Strasse."

"How long was that?"

"About five minutes."

"Put down the corner of Prinzen Strasse on the blackboard, and bear in mind that the direction from your house was eastward, and the distance was as far as you walked in five minutes. In what direction did you walk after having turned the corner?"

And so on. This boy was made to describe and then to delineate his course; and then another boy was taken. There was a constant appeal to the child's intelligence and experience. The first boy had been made to draw a correct map of the road he took to school. The second boy, who lived in a different part of the city, was made to do the same, fitting his lines and distances correctly to those of the first. A third, fourth, and fifth pupil were called up and required to do the same, and in the end the blackboard exhibited a rough but fairly correct map of a considerable part of the city of Berlin.—*Christian Union*.

KINDERGARTEN FORM-STUDY IN THE PRIMARY SCHOOL.

Manual training in the schools is now an accepted fact. The only questions remaining unsettled are the definition of the term, and the ways and means of its introduction into the schools. There should be no confusion of terms in this matter. Manual training should not be confounded with trade or industrial or technical training.

Diverse as opinions are on the subject of manual training, upon one point are they all in harmony, that nothing should be admitted into the curriculum of the schools which cannot demonstrate its value to general education. Technical education is not general education; it is special education, and should follow general education.

93

Hitherto our schools have taught that language was the most worthy form for the expression of thought. The present agitation in manual training shows that to educate the child on all sides there must be introduced into the schools something which will train the eye and hand; and eye and hand cannot be trained to accurate observation and manipulation without, at the same time, exercising the faculties of attention, comparison, and judgment.

This training of the hand and eye cannot be begun too early in the child's school career. In the kindergarten is found the fullest conditions for the development of sense, feeling, and faculty, and for an all-sided expression of thought in language, modelling, and drawing. The kindergarten is the true parent of manual training. The training which a child receives in one year's attendance in a kindergarten will develop in him a skill in the use of his hands and a habit of accurate measurement by the eye which will be his possession for life. All the gifts and occupations of the kindergarten tend to the development of the self-activities of the child, and this is the great object in education. By enlarging, expanding, and developing the form study and drawing of the kindergarten, and by interrelating the programmes of the primary school and the kindergarten so that this advanced study will naturally become a part of the work done in the primary school, there will be carried forward methods and principles which will most surely aid in the all-sided development of the child. Wherever this has been done, the most satisfactory results have been obtained.

Nothing in the primary school should be subordinated to manual training; it should find its way into the curriculum as did music and drawing, and by a readjustment of the course of study should make a place for itself firmly, quietly, and unostentatiously.

Every primary teacher should familiarize herself with the principles and methods of the kindergarten. Those who have taken the course have become thoroughly interested in it, and this interest has always been transferred to their schoolroom.

Apart from the value which the study of form has on the child's mind in awakening sensations and training to habits of accuracy, perception, and attention, is its influence on the purely literary studies of the schoolroom. In every other study there is found greater interest, and progress in language, numbers, and reading is more pronounced and certain. From these habits there must grow a dexterity of the hand, an accuracy of the eye, and a symmetry of the mind which will make the boy a better man, the girl a better woman, if an education that aims to an all-roundness of development can ever be a factor in producing such results.—*Journal of Education*, Boston.

ADDRESS AT CONVOCATION.

Thursday, 19th March 1891.

By DR. D. DUNCAN, PRINCIPAL, PRESIDENCY COLLEGE.

When Lord Connemara appointed me to deliver the customary address on this occasion, it was with mixed feelings that I undertook the duty. And the more I have thought of it, the more divided have my feelings become. On the one hand, I feel gratified to be associated with the distinguished men who in years gone by have stood in the place I occupy to-day. On the other hand, I cannot but reflect that this high privilege brings with it great responsibility. My predecessors have, on behalf of the University, offered to graduates of former years a cordial welcome to the world of letters and science. It is for me to see to it that the welcome offered to you shall not be less warm and sincere. An ideal of duty, pure and lofty, has year after year been presented to graduates on their admission as members of the University. It is for me to give earnest heed that, in presenting this ideal to you to-day, it shall not be lowered or tarnished.

I am reminded to-day of twenty years ago, when for the first time I attended as a spectator a Convocation of this University. However much this graduation ceremony may, by reason of repetition, lose in attractiveness to a superficial on-looker, it has an abiding charm for the man who retains through life his sympathy with the struggles and triumphs of the youthful seeker after knowledge. I can recall as if it had been but yesterday the eloquent words in which your predecessors of twenty years ago were addressed by one who was even then coming to be recognized as a power for good in Southern India; though at that time he had not secured the hold on the affectionate esteem and gratitude of your countrymen which his great abilities, his liberality, his self-sacrificing devotion have now deservedly won for him. On that occasion the Rev. Dr. Miller sought to instil something of his own enthusiasm into the breasts of the young men just admitted to be members of the University, appealing to them with all the power which eloquence and sympathy can give to prove themselves worthy sons of an ancient people. In the years that have come and gone since then, the newly admitted graduates have had the privilege of listening to addresses, some of them aglow with the fire of eloquence, some of them laden with that practical wisdom which the observation and reflection of years bring to the philosophic mind. If my remarks are characterized neither by the eloquence of the orator, nor by the wisdom of the sage, I may at least hope that they will afford you some encouragement, stimulus, and guidance at this important period of your lives.

I am charged, ladies and gentlemen, with the pleasing duty of offering you, in the name of the Chancellor, Vice-Chancellor, and Fellows, a cordial welcome as members of the University of Madras. We hold out to you the right hand of fellowship in no grudging spirit. The dignity you have this day attained unto has been honourably won after long-continued and arduous toil. It has been won in a field in which wealth and birth confer no privileges, where each man has to depend on himself, where intellectual force, controlled by a resolute will and a lofty conception of duty, is the principal factor of success. Looking back on the years of study that have had their fitting consummation to-day, many of you will think with regret of much that has been left undone, of mistakes made, of precious hours and days wasted, of energies misapplied. And it is most fitting that you should at this important stage of your lives lay to heart the lessons of experience. But do not allow regrets for the past to shut out from your view the possibilities of the future. Brooding too much over past failures is apt to weaken the knees of action, leading one to the fatal conclusion that, because the best has not been made of the years

94

gone by, it is useless to prolong the contest. At no time of life should men, reflecting on the past, give way to despair, and least of all when, like you, they have just got beyond the threshold of it. If, notwithstanding mistakes and failures, you have been able to secure the position you occupy for the first time to-day, let that be to you a ground of hope that your future achievements will be honourable to yourselves, beneficial to your fellow-countrymen, and a source of pride to the University which this day receives you into its membership.

And this reminds me that I must put you on your guard against the too common misconception that the graduation ceremonial is the crowning of the edifice of knowledge and culture. Hitherto you have only been laying the foundation, to-morrow you begin to rear the superstructure. Your admission to the University to-day is merely the seal and token that, in the opinion of the Senate, the foundation stone of learning and culture has been well and truly laid. Do not deceive yourselves, therefore, by the thought that the years to come will be years of mental indulgence, in which you will have nothing to do but reap the reward of your past exertions. Your future may be a life of ease if you deliberately will it to be so. But in that case you must be prepared for the sure and certain penalty—the loss of that intellectual and moral power you now possess. The only way to preserve the knowledge and culture you have acquired is to endeavour to deepen, extend, and apply the one, and to perfect the other. As the foundations of a palatial structure gradually crumble to ruin, unless by being built upon they are protected from the disintegrating action of the elements, so the grasp of principles you have acquired and the studious habits you have formed will slowly but surely decay, unless you diligently cultivate and strengthen them. How often is the bright promise of youth obscured long before middle age! The greatest happiness of the teacher is day by day to watch the expansion of the faculties and capacities of his pupil, and to forecast that brilliant future when those powers shall have reached maturity. Sometimes, alas! it is his most poignant sorrow to see the eager questioning spirit settle down into slothful acquiescence, the keen edge of the subtle intellect become blunted, the high aspirations of youth, with clipped wings, sink into the stagnant waters of dreary common place. Let not your teachers have any cause to say of you: "Surely we have laboured in vain." If you have acquired any love for books, bear in mind that that love will give place first to indifference, and then to distaste, unless it be sedulously cultivated. If you have gained any insight into the wonderful works of nature, do not lull yourselves to sleep by the easy-going reflection that all you have to do in future is to hold fast by what you now possess. Unless you earnestly extend and cherish your acquaintance with and love for nature, depend upon it, she will in time become a sealed book to you. If you have acquired any power of sustained flight in the rarified atmosphere of speculative philosophy, do not imagine that you will be able to maintain the power of living in these higher regions of thought, unless ever and anon you give yourselves up to lofty meditation, and leaving sordid cares behind, live

"In thoughts sublime that pierce the night like stars."

In accordance with the regulations of the University, it is my duty to exhort you to conduct yourselves suitably unto the position to which, by the degrees conferred upon you, you have attained. This implies that you give due heed to the cultivation of your intellectual and moral character for their own sakes. Self-culture is, moreover, an indispensable prerequisite for the fulfilment of those other duties incumbent on you as graduates of this University. You have now become members of a body corporate, and can no longer as individuals live for yourselves. Your aims and pursuits must henceforward be in harmony with those of the society into which you have been admitted. And what are those aims? They are the advancement of learning, and the promotion of morality and human welfare. Freely ye have received of the gift of knowledge, freely give. Strive not only to increase the stock of human knowledge, but also to spread it among the ignorant. Be

it your aim not only to elevate and purify the ideal of duty, but also to encourage and help your fellowmen in their endeavours to live a better life. Whatsoever things are true, whatsoever things are honourable, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report: these things it must be your ceaseless endeavour to realize in your own lives and in those of your fellowmen.

If our graduates would earnestly strive to promote the cause of morality and sound learning, and to advance the welfare of their fellow-countrymen, there would, I am fain to believe, be less of adverse public criticism at their expense. The opinion is widespread that the manufacture of graduates—for in this disparaging way is the course you have gone through referred to—that the manufacture of graduates is both harmful in itself and far in excess of the requirements of the country. This is a serious charge, and it is for you and your fellow-graduates to inquire into the truth of it. On the 31st March last there were on the rolls of the University 2,169 graduates in Arts, 351 graduates in Law, 78 graduates in Medicine, and 47 graduates in Engineering. Now, taking into account only the graduates in Arts, I would ask whether 2,169 is an excessively large number among a population of some forty millions. Compared with the audience assembled in this hall, you, the newly-admitted graduates in Arts, may seem to be a large body; and should your names appear in to-morrow's newspapers, the list will not be a short one. This year, as in former years, the question will be asked: What is to become of you? People forget that before twenty-four hours are over you will have begun to scatter yourselves over the enormous area embraced by Southern India. South Indian society must be in a hopeless condition if useful work cannot be found for one graduate in every 18,441 of the population.

In order to account for the low estimation in which graduates are often held by the public, we must, I think, take into account other considerations than their absolute or relative numbers. It is just possible, for example, that it has its origin in the conviction that the graduates admitted year by year are not of the right kind. This is a matter deserving of the most earnest consideration. For it implies either that the young men who receive a University education are not of the right class, or that the education given is defective, or that our graduates do not live up to the expectations formed of them by others and the promises made by themselves. It must, I think, be admitted that there is an element of truth in each of those implied charges. It is to be regretted that the aristocracy of native society holds itself aloof from University culture, notwithstanding the example set by the Princes of some of the reigning families of Southern India, who enter the arena of intellectual competition, to have their ability and knowledge tested on equal terms with the lowliest in the land. On political and social grounds it is eminently desirable that those whom the masses of the people have been accustomed to look up to as the leaders of society should be brought within the influence of the highest culture. The tendency of modern society is to attach less and less value to birth and wealth, unless accompanied by a cultivated mind. The conservative instincts of the people of India are, probably, still strong enough to cause the aristocracy of birth and wealth to be looked up to, even though it be steeped in ignorance and prejudice. But the democratic wave which is spreading over the world will sooner or later change the aspect of affairs in India also, and it is for the high-born and the wealthy to show by superiority in knowledge and intelligence that they are entitled to be regarded as the men of light and leading. In all this I do not for one moment mean to imply that opportunity should not be given to the son of the poorest and humblest in the land to receive the benefits of University education. It is in the interests of society that intellectual ability and moral worth, by whomsoever possessed, should be allowed every opportunity of developing themselves. This the colleges of South India have done and should continue to do, without, however, leaving the other undone.

95

As to the charge, so often made, that our University education is defective, none will admit that more readily than those who are chiefly responsible for it. But for these defects, whatever they are and whether remediable or irremediable, you, ladies and gentlemen, cannot be held responsible.

But the opinion that graduates are too numerous has, probably, its main support not in the consideration that the right class of young men do not attend our colleges, nor in a conviction that the system of the higher education is defective, but in the fact that so many graduates fail to realize the expectations formed of them, forgetting the promises they made on graduation day to support and promote the cause of morality and sound learning, to advance social order and the well-being of their fellow-men. It is for you to help to remove this reproach. In advising you how you will best justify before your fellow-men the education you have received, it is impossible to lay down hard and fast rules. Much will depend on your own peculiar bent, much on the circumstances in which you may be placed.

As regards the support and promotion of sound learning, each of you will probably best achieve that end by continuing to prosecute the particular branch of study to which you have mainly devoted yourselves during your University career. It is not unusual on occasions like the one which has called us together this afternoon, for the speaker to take the opportunity of pressing upon young graduates the claims of the science to which he is himself devoted. And there is much to be said in favour of the practice. Were I to follow it, I would remind you that the proper study of mankind is man, and I would strive to impress on you the paramount claims of Psychology and the cognate sciences. But I shall not abuse the position I occupy to-day to advertize my own wares to the prejudice of those of others. On the contrary my advice to you is: Follow the line of study you have been pursuing during the past years. If your collegiate training is worth anything, that is the sphere in which, other things equal, you will be most likely to succeed. It may be your happy lot to extend the boundaries of your science ever so little into the illimitable region of the unknown. If you cannot accomplish this, the crowning achievement of the man of science, the effort put forth will, nevertheless, strengthen your reasoning powers, will give you a firmer grasp of known principles, and will thus render you better fitted to help your fellow men to participate in the treasures of wisdom which, unlike other treasures, are not diminished to the individual by any increase, however great, in the number of those who share them.

But, while counselling you to pursue, with all the earnestness and assiduity of which you are capable, the particular branch of knowledge which natural inclination and aptitude strengthened and methodized by academic discipline, may urge you to follow, and which the circumstances of your future life may render practicable, I should fail in my duty were I to abstain from inviting your special attention to the claims of one department of thought. It may not be the fashion now-a-days to profess a high regard for speculative philosophy and metaphysics. Metaphysics may have deservedly become a by-word and a reproach, and Michelet may have rightly defined it as the art of bewildering one's self methodically. I am not concerned with defending the speculations which under the name of metaphysics, or ontology, or theology, have engrossed the minds of men since the dawn of reflection. But I am deeply interested getting you to understand and appreciate the spirit of inquiry, of which metaphysical speculations, however erroneous they may be, are the outward expressions. The ever-increasing volume and the ever-multiplying ramifications of knowledge render specialization a more and more pressing necessity for each succeeding generation. To few men is it permitted to gain a minute acquaintance with more than one science. And what is true of the man of science is true also of the college student. The tendency of modern academic regulations is to confine the student to a comparatively

small number of subjects. But this specialization, necessary though it be, has its disadvantages both in respect to the training of the faculties and in its bearing on that adequate knowledge of the universe which is the aim of the highest scientific thought. Each science professes to give the last word that can for the time being be said, not on the universe as a whole, but on that particular part of it with which it is concerned. Chemistry gives us the final conclusions of the chemist with regard to the phenomena and laws of chemical combination. Biology systematizes the latest conclusions with respect to the phenomena and laws of life. Psychology confines itself to the domain of consciousness. Each science presents, therefore, only a partial view of nature; and this fact should never be lost sight of. For partial or one-sided views become harmful when, forgetting their real character, we treat them as complete and all-sided. Now, this is precisely what the specialist is in danger of doing. The more the mind is engrossed with a particular branch of knowledge, the greater is the tendency to treat all other branches as of less importance, and, therefore, as less deserving of study. This scientific bias, if unchecked, may lead to the other sciences being ignored altogether, the favourite science being looked upon as affording a complete account of the universe—as embracing the alpha and the omega of knowledge. Against this tendency—a tendency favoured by the training you have received—you must ever be on your guard. If the several sciences give only the final deliverances that can be made for the time being in their respective spheres, something more is needed before we can be said to possess a genuine and comprehensive conception of the universe. What is that something more? It is included in what Aristotle calls the 'First Philosophy,' it is the undercurrent in all metaphysical speculation, it finds its highest expression in theology. Each science, in its search after unity of cause and law, ultimately arrives at certain laws of the highest generality as far as that science goes. It is the business of the First Philosophy to gather together these general laws, with a view to their being combined into a few still more general principles. And it is only when the final utterances of all the sciences have been thus co-ordinated and, if possible, subordinated to higher generalizations, that we can be said to have an adequate conception of the universe as a whole. To reach this lofty point of view, a minute acquaintance with all the special sciences is not necessary. The branches of knowledge are many, but the intellectual faculties employed and the operations carried on in scientific investigation are comparatively few. A mind thoroughly trained in habits of observation, experiment, comparison, abstraction, generalization, and inference, possesses all the fundamental qualifications for undertaking the task of discovering those higher generalizations which unite the different and often seemingly conflicting conclusions of the several sciences. Cultivate, therefore, this habit of bringing the conclusions of the special sciences face to face, of comparing them one with another, of seeking for some higher or more general principle or law of which they are the specialized forms. This is the genuine breadth of culture. This it is that shows us the special sciences in their true proportions, as parts of one stupendous whole, and gives us a conception of the universe at once comprehensive and satisfying.

It is doubtless true that in striving after this comprehensive view of the universe, men have often ignored altogether what the special sciences have had to say, and thus have been led into the wildest extravagances, peopling the universe with meaningless abstractions. But if you follow the course I am recommending, you will not fall into this snare, for in every step you take you will tread on the solid ground of nature as presented to you by the respective sciences. Nor will this habit of mind, which seeks to co-ordinate and unify the manifold results of human experience by means of higher laws, prove in any way antagonistic to successful investigation in some one of the special departments of inquiry. Let it be your endeavour, therefore, to combine devotion to one branch of study with that more general outlook on the wide domain of knowledge which enables one to see things in their true proportions and relations, instead of looking at them through a distorting medium, in which their intrinsic harmony too often appears a discord.

Let the spread of knowledge among your ignorant fellow-countrymen be also an object of constant solicitude to you. When you leave this hall to go to your appointed labours in different parts of the country, carry with you the firm resolve that in whatever sphere of life you are placed, you will regard it as your bounden duty to help to dissipate the gloom of ignorance and superstition which prevents your fellow-countrymen from entering into full possession of "man's beautiful heritage, the earth." Each of you can do a little, some of you may do much, to spread the light of knowledge. There is, I fear, too much truth in the popular verdict that, with the exception of those who have adopted teaching as a profession, the graduates of this University have hitherto done little towards the spread of education. The neglect of this duty is, I doubt not, one of the reasons for the small esteem in which they are held by the public.

There is one aspect of this duty to which I would draw your special and earnest attention. And here I address myself to Hindus and Muhammadans. It is now three and thirty years since this University was founded. During that period the advance in the education of the male population has been remarkable. Not less remarkable has been the slow progress in the education of the female population. Intense eagerness to educate your boys and almost complete indifference towards the education of your girls, this is a phenomenon of Indian society which strikes the foreigner with amazement. I am not unmindful of the steady increase that has taken place in recent years in the number of girls attending school. In one respect this increase is the most melancholy part of the business. During the year ending 31st March, 1890, the number of girls attending school in this Presidency increased from 69,873 to 78,344, or by 12.1 per cent. The increase in the year previous had been 6.6 per cent. This you will think belies my assertion that there has been little progress, and you will wonder how such a goodly increase can in any aspect be regarded as a cause of dissatisfaction. But, look at the state of things a little more closely. Almost all the Hindi and Muhammadan girls attending school are in Primary schools, and most of them in the lower standard of these schools. In Upper Secondary schools for girls there was, on the 31st March last, not a single Muhammadan pupil. Brahmins and Sudras were also entirely absent; and the whole Hindu community throughout the Presidency was represented by five girls! Is this as it should be? In Lower Secondary schools for girls there were 23 Muhammadans, 53 Brahmins, 32 Vaisyas, 338 Sudras, and 16 belonging to other classes. Out of 2,113 girls reading in these schools, 1,651 were Europeans, Eurasians, or Native Christians; while only 462 were Muhammadans or Hindus. Again I ask, is this as it should be?

A few months ago the attention of the public was directed by one who is now a Fellow of the University to the evils consequent on early marriages. On that occasion Dr. Smyth dwelt more on the bodily than on the mental aspect of the question. But in whichever of these aspects it is viewed, it is closely connected with the subject I am now considering, namely, the early withdrawal of girls from school. I am not here as a censor of your time-honoured customs, which, if changed at all, must be changed of your own deliberate choice. But it is my duty to impress on you two truths: firstly, the absolute necessity of educating your women, if you are to hold your own among the nations of the earth; and, secondly, the utter impossibility of this being done so long as custom withdraws girls from school soon after they have passed beyond the age of infancy. As I have said elsewhere: "Hindu and Muhammadan parents must be brought to face the vital issues that are bound up with this question. If Native society, in full view of all the circumstances, deliberately allows itself to fall behind in the march of progress, there is not another word to be said. But if it desires to take its place among the foremost peoples of the earth—to be a progressive instead of a stagnating or decaying society—it must gird up its loins and resolve at whatever cost to emancipate its women from the thralldom of ignorance. A society composed of educated men and uneducated women can never be a progressive society."

Do you regard knowledge as a priceless possession for yourselves, but a useless encumbrance or a curse to your mothers and your wives, your sisters and your daughters? You are prepared to make many sacrifices for the education of your boys, is that of your girls not worthy of equal sacrifices? Are you doing your duty by your daughters in sending them to school only during infancy and the two or three years that follow it, removing them from instruction when their minds are just beginning to find pleasure in the acquisition of knowledge? The evil is not merely that their education makes no further advance, but that the very little they learnt at school rapidly fades away, and along with it there vanishes the taste for reading and culture, the seeds of which had begun to germinate when they were withdrawn by social custom to the comparative seclusion of the domestic circle. The male members of the family, if they happen themselves to be educated do occasionally strive to keep the last traces of school-life from being effaced from the minds of the girls of the household. But even this is rare; and I believe I am correct in saying that in the majority of households no attempt is made to continue the education of girls after they leave school, and that, consequently, within a few years their minds are in much the same condition as are those of girls who have not been to school at all.

You profess to have received pleasure and profit from the education you yourselves have received. Try to imagine the knowledge you have gained, and the tastes you have acquired, during your school and college life, obliterated. Would life appear in such circumstances to be worth living? Would it not, to say the least, have lost one of its greatest charms? Yet this is the condition to which social custom condemns the majority of your women: I do not say that their lives are joyless lives, but I do say that they are denied the means of experiencing some of the keenest and purest enjoyments a human being is capable of. This selfishness, which practically shuts out one-half of society from the pleasure-giving and refining influence of literature, science, and art, is a reproach to educated men.

And think, gentlemen, how much you yourselves lose in being deprived of the sympathetic companionship of your wives and sisters. The intellectual pursuits which have occupied your time during these past years being entirely foreign to them, they cannot share with you that supreme satisfaction which the victories of the intellect bestow, nor can they help you to bear the trials and disappointments that attend the steps of the seeker after knowledge.

And what about your children? If you wish your women to be something more than the physical mothers of your children, you must see to it that they are educated. The influence of the mother's character on her children during infancy is admitted by everybody. Yet how few realize what that means! How can an illiterate, uncultivated, perhaps infantile mother, watch over the opening faculties of her child and mould its character for good? One cannot trust to maternal instinct and common sense alone in such an important matter. Maternal instinct is a sorry substitute for intelligent judgment, and common sense is very uncommon in an uncultivated mind. There is no more reason why the moulding of the characters of the young should be intrusted to the instinct and common sense of uneducated people, than there is for intrusting any other human pursuit to such guidance. There are, on the contrary, very powerful reasons why the first years of life should be placed under the most highly trained intelligence, the experiences of these years being those that exert the most lasting influence for good or evil in after life.

And reflect, gentlemen, on the future of your society? Unless you earnestly, and manfully, and successfully grapple with this question of female education, there can be no lasting social development, and in the absence of development there must come decay. If hereditary transmission be true at all, it applies to mind as well as to body. We may not yet have discovered, we may never discover, the intermediate links in the chain of causation by which the intellectual and moral qualities of parents are transmitted to their

children. The fact is, nevertheless, indisputable. And if there be any truth in the belief that intellectual endowments take more after the mother than after the father, the question becomes all the more serious. The child of parents possessing well-developed bodies and minds begins life with faculties and capacities, which, in proper conditions and in due course, grow up to the maturity of manhood or womanhood. Not so with the offspring of a mother whose faculties are infantile and undeveloped. The mental developments of the child is speedily arrested, the faculties retaining to the last the inherent weakness of their maternal source—a weakness which will prevent them from ever growing unto a vigorous maturity. Do men gather grapes of thorns, or figs of thistles? Can the plentitude of intellectual and moral power be reaped as an inheritance from a mother, perhaps a child-mother whose faculties have lain dormant, or if at all roused to activity have been arrested in their development almost at the outset? For the sake of posterity therefore I entreat you to do what you can to remove one of the greatest blots on your social system.

Let me not be misunderstood. Do not imagine that I mean to point the moral that may be drawn from the appearance amongst you of five representatives of the gentler sex. For the second time in the history of the University ladies have been admitted to the degree of Licentiate in Medicine and Surgery and for the first time ladies have been admitted to the degrees of Bachelor of Medicine and Master in Surgery and Bachelor of Arts. It is most meet that a modern University like this should open its door to the one sex as well as to the other; so that women, who possess the means and the mental endowments, may receive the highest education, both general and professional. But I do not advocate that all your women should be educated up to this high standard. I do not ask that in every household there shall be a blue-stocking; though amid the manifold interests of the complex society of the nineteenth century, even the blue-stocking may find her appropriate sphere and function. The cause which I earnestly commend to your sympathy and co-operation is the bringing about of such modifications in your social customs as shall render it possible for young women to obtain an amount of education sufficient to call into exercise and harmonious development those faculties and capacities which in their present condition lie dormant or reach only a dwarfed and stunted growth. Their well-being and your own well-being, the well-being of your children and the future growth of your society, depend on the manner in which you perform this primary duty of educated men.

The solution of this momentous question is, I grant, beset with difficulties, and it is not for me to say how they are to be overcome. In this matter, gentlemen, the people of India must work out their own salvation. Do not, however, too readily acquiesce in the conclusion that the problem is absolutely insoluble, or that it cannot be solved within any measurable period of time. Was the settlement of any great social question ever arrived at by means of a policy of despair and *non possumus*? Let me remind you that several of the essential conditions of success are at the present in your midst. If earnest and zealous men are needed to keep the question continually before the public, have you not amongst you many with the fervour of Dewan Bahadur Raghunatha Rau? If far-seeing statesmanlike views are required, have you not men endowed with the wide political sagacity of the venerable Raja Sir T. Madhava Rao? Are you afraid lest the good cause should make shipwreck at the outset by the intemperate advocacy of those whose zeal is apt to carry them beyond the bounds of prudence and legality? This difficulty can surely be met and overcome by a society which possesses men with the judicial acumen and calmness of the Honorable Mr. Justice Muttuswami Aiyar. If you wish the movement to be under the aegis of the highest academic culture of your *almamater*, and to be presented to the public with all the charms of literary grace, have you not in men like Rai Bahadur Ranganatha Mudaliyar the embodiment of all that is best in the culture of the East and the West? If within the Senate of your University there are men with so many of the diverse and necessary qualifications for carrying to a successful issue a great

social reformation, may you not assume that throughout the land there are many such, waiting merely for you to say: "Come over and help us?" The main thing required is to make you feel in its full force the urgency of the question. Need I repeat that we are not dealing with a matter of a little more or a little less of benefit to a small section of the community, but with the removal of an evil which is eating out the very vitals of your society?

I have endeavoured, ladies and gentlemen, to the best of my ability, to point out to you some of the ways in which you will best fulfil the promises you have made to promote the cause of morality and sound learning and the well-being of your fellow-men. The responsibility laid upon you is heavy, and I have not sought to lighten it. Let the good name of your University be one of your most cherished possessions. Except as affiliated to that world-wide University, which embraces all the schools that, through the ages, have kept alive the sacred flame of knowledge, your *alma mater* cannot boast of a hoary antiquity. But though the traditions you have to maintain may not claim the sanction of centuries, yet, young as they are, they deserve to be held in reverence. To cherish the lofty traditions of a long bygone past is a worthy task; your task is a worthier one. For it devolves on you to formulate the principles and to work out the practices that will become in due course the traditions of future generations. Let it be your earnest endeavour so to conduct yourselves that those traditions shall in the years to come tend to the highest good of this ancient land. Your University, while laying upon you grave responsibilities, does not demand impossible achievements. You are not called upon to forego your own private advancement, nor the well-being of those with whom you are connected by ties of kindred. In common with your less favoured fellow-countrymen you will engage in the ordinary duties of life, pursuing the same ends as other men. In each and all of those duties let it appear that you are guided by those qualities of mind and heart which genuine culture imparts. To some of you more than to others there will come a large measure of what is called success in life. But to all of you, if you abide by the promises you have made to-day there will come, whatever else may fail, the sweet consciousness that you have striven with all the strength that was in you to live up to a high ideal. Go forth now to your allotted walks in life, clear in intelligence, resolute in purpose, pure in heart; carrying with you the inspiring and sustaining thought that you have this day been admitted as citizens of no mean city—as citizens of that catholic Universitas, or republic of letters, which knows no distinctions of race or creed, and on the burgess-roll of which are inscribed in undying fame the names of the wisest and the best of every age and clime.

EDUCATION OF INDIAN WOMEN.

A PAPER READ BY MRS. BRANDER, ON DECEMBER 11TH, AT LADY LYALL'S,
18, QUEEN'S GATE, LONDON, S.W.

INSPECTION.

Probably the inspection of schools in India is a very different matter from inspection in England, and therefore it may be of interest if I try to give an idea of my own personal work. I am sometimes asked if my work is not dull and monotonous, but it is very far from that, partly because much of it is pioneering, and also because it involves much travelling. I have at present in my range 485 schools, with 23,400 scholars, scattered over a tract of country 600 miles long, and from 50 to 250 broad. My head-quarters are in the town of Madras. It contains about 100 girls' schools, and my inspection of these, and office-work connected with reports and returns, occupy about four months of the year. During the other eight months I spend the greater part of my time in work that necessitates travelling.

The preparations for a tour are rather formidable, for, in order to be independent under all circumstances, it is necessary to take a bath, a cot, crockery, cooking apparatus, and a chair. My luggage also includes a big box for official papers and stationery, and another of toys, pictures, and other presents for the children. These last are supplied by the liberality of the National Indian Association, and are among my most valuable possessions, as they win for me a welcome and scatter pleasure and help wherever I go. My staff consists of two Assistants, three clerks, and two *peons*, or messengers, and I usually take with me on my travels three servants of my own, one for my Assistant, and one for the Head Clerk, so that we form a company of 11 or 12 persons. Our travelling is done in all sorts of conveyances,—trains, steamers, boats, palanquins, and country carts. These last are my final resource, when I can obtain no other means of transit, and many nights have I spent in them. They are of the roughest wood, guiltless of springs, and protected from the weather by a roof and sides of plaited palm leaf. A thick layer of straw is placed on the wooden floor; my mattress and pillows are laid on the straw and curtains are fastened across the two ends of the cart. A very fair room on wheels is thus formed. It is drawn by bullocks, at the rate of two miles an hour, and when the roads are good it is bearable. But when they are bad, or when our way lies, as it often does, across a country destitute of roads, and through unbridged rivers and canals, the nights are not very restful. I may mention that what I prefer in the matter of roads is to follow in the footsteps of a Governor on tour. I once had the good fortune to travel over certain roads immediately after our Chairman, Sir Mountstuart Grant Duff, had passed over them, and I never before or since found those roads so good! At the beginning of this year I journeyed for nearly 500 miles in country carts, travelling each night, inspecting schools during the day, and travelling on again next night. It is impossible to journey in these carts during the day, partly because of the heat, and partly because I cannot afford the time. One of the men carries a gun for our protection during these journeys. I have more than once been warned that some of the roads on which we travel are frequented by robbers and by bears; so we always carry the gun, and the *peons* take turns to walk by our cavalcade with a lantern and to watch. We have never been attacked, but on two occasions we were stopped. On the first, I awoke and heard the *peons* calling to each other for the gun, and, when I enquired, they told me that there were ten men crouching down by the road in front, and they feared they would attack us as we passed. I told the *peons* to load the gun, and I then turned out that by some oversight they had left the ammunition in Madras! It was annoying, but I had all the lanterns lighted; the *peons* put on their belts and badges to look official; one of them shouldered the empty gun, and we passed by the ten men without any molestation.

My lodgings, when on tour, are as various as my means of transit. Very kind hospitality is offered to me, both by officials and Missionaries, but my company is so large, my time so short, and I am so busy that, as a rule, I cannot avail myself of this kindness and also I visit many places where there are no Europeans. Where there are rest-houses or *dar-bungalows*, they are usually fairly comfortable, but some are very primitive, and in many places there are none. Sometimes the bungalows are under repair and uninhabitable. At the beginning of this year, we arrived at one at four o'clock one morning, after a terrible cart journey over a shocking road, and I heard the servants whispering to each other that the bungalow was "only horns." I sleepily wondered how a bungalow could be only horns; but when I peeped out of my cart at dawn I understood. The house was in ruins, and the roof had disappeared, all that the bare bamboo rafters or "horns," as the servants expressed it in Tamil. It was characteristic of the readiness of resource and helpfulness of Indian servants that they had found another resting place for me in a native choultry. It was little more than a verandah, but they had hung up their own blankets to protect me from the sun. The building was fortunately new and clean, and I managed to stay there until

it was cool enough to travel on again. Occasionally I am lodged in great comfort, and even splendour, as, for instance, when I visit Vijayanagaram. The Maharani there always places at my disposal a large house, with many servants, carriages, and horses, so that I am quite grand! Rajas in other towns often do the same. The transitions from a ruined bungalow to a palace, and back again, are often very sudden and rather amusing. On one occasion, when a great flood had carried away the bridge by which I hoped to reach a dāk-bungalow, I had to pass the night in a small schoolhouse, with a mud floor and walls, and the servants made a bedroom for me with the blackboards. Happily, travelling, like illness, seems to bring out the best and most helpful side of Indian servants' characters. The greater the difficulties, the more energetic and patient they usually become. One also meets with much kindness and courtesy from the native residents, and offers of help are sometimes very amusing. I have more than once been offered an escort of police, and once, when Miss Carr was staying in the house of a Zemindar, he offered to kill a sheep for her special benefit, and invited her to stay until she had finished it.

My work, when on tour, is full of variety, and, if hard, is also interesting. The Government Schools are under my direct management, so that, besides actual inspections, my work includes appointing teachers, dismissing, scolding, and encouraging them, settling disputes, giving model lessons, and distributing books, patterns, and apparatus. Then there are interviews and meetings with the influential people of the various places, to induce them to take an interest in the existing schools, to establish more, and to open Home Education classes. Sometimes these meetings fail, but sometimes they are very successful. A year ago we had a meeting of Mussulman gentlemen at Cuddapah, when I represented, that although there is a large Muhammadan community there, not a single school existed for Muhammadan girls. They took the matter up, and now there are four schools for such girls in Cuddapah.

The annual distributions of prizes do much to arouse interest in girls' education. The schoolhouse is decorated with palm or plantain leaves, the little pupils attend in their gala dresses, the parents, and especially the mothers, are encouraged to be present, and the leading people of the place are specially invited. The wife of the Judge or Collector, or other official, often presides, and a real interest in the education of girls is aroused. The girls themselves thoroughly enjoy the tamasha, and especially the pretty prizes. I am sure that those who supply me with so many would be amply repaid if they could see the happy faces of the recipients.

I endeavour as much as possible to visit the Ranas and native ladies in the different places to which I go, and these visits are often very interesting, and sometimes amusing. My spectacles excite great interest, particularly among the elder women. One old Telugu woman said to me, "I suppose, when you have those on, you can read any language!" The Maharani of Vijayanagaram was so delighted with them that she asked to be allowed to try them on. Here a little difficulty arose, as she does not care to take anything directly from me, but I gave them to her grandchild, he to her; she tried them on, returned them in the same way, and begged me to get her a pair like them, which I did.

PROGRESS.

I am often asked whether female education in India is progressing, and I am thankful to be able to say that I am sure it is. The number of girls under instruction is steadily increasing. In the town of Madras the numbers have trebled during the last ten years.

A still more important matter is that the character of the education has greatly improved. At one time, many girls' schools in Madras were little more than collections of very young girls, doing little or nothing, each presided over by a so-called teacher who did little more than walk about among them with a cane, giving a rap here and there to the most troublesome. Now the little pupil enters a fairly good infant school, and in many

cases a Kindergarten, presided over by a trained mistress, and passes regularly through the classes of a well-organized school. When she reaches the age of eight, or nine, at which she would formerly have left school, she is often induced by a scholarship to remain for two or three years longer, and, when she does leave school, she, in many cases, continues her studies under a Home teacher. As I have endeavoured to show, the interest of the general community in the education of girls has certainly increased. It is manifested by the offer of scholarships and medals by H. H. the Maharaja of Vijayanagaram, the late Princess of Tanjore, and others, by subscriptions from native ladies and gentlemen towards prizes, clothes, and fees for the poorer scholars, by visits to schools, and by active steps taken by educated Hindus and Muhammadans towards establishing and managing girls' schools. I am far from saying that this interest is sufficient or adequate, but it is increasing. One satisfactory sign of progress is the possibility of charging fees in girls' schools. Thirty years ago it was the custom to bribe girls to attend school, by giving them small sums of money, and, in the most backward district, this custom has not yet quite died out. A great advance has been made when girls not only attend school unbribed, but pay fees for attending. In my Range the annual fee collection is between Rs. 30,000 and Rs. 40,000, or from £3,000 to £4,000. One important sign of progress and of hope for the future is the increasing respect which Hindus and Mussulmans are showing towards teaching as a profession for their daughters. Twenty years ago it was almost impossible to induce caste girls and Muhammadan girls of good family to be trained as teachers. Now they are more willing, and we are consequently obtaining an improved class of school-mistresses. For instance, a Brahmin doctor's young wife, (formerly a pupil of the Maharani's Girls' School at Mysore), and the wife of the Principal of the Sanskrit High School at Rajahmundry, (also a Brahmin), are being trained as Schoolmistresses at the Presidency Training School. Native Christians are especially advanced as regards the education of their women. My best assistant, Miss Govindurajulu, is a Native Christian. She has worked so well that she has now been appointed to act for me during my present leave, and I hear that she is carrying on the work very successfully. Another sign and means of progress is the provision of good vernacular literature for girls. Formerly the Tamil and Telugu books placed in their hands were usually translations from the Sanskrit, and were unsuitable and unattractive. The teachers themselves confessed that they could not read them without a dictionary. Of late years a most important and useful step has been taken, by the publication, in Tamil and Telugu, of illustrated magazines for girls. The most successful is the *Maharani*. It is well illustrated with coloured pictures, and with patterns of needle-work and drawing, and the letterpress is very good and attractive. Several of my Hindu girl friends are enthusiastic readers of the *Maharani*. Another direction in which some progress has been made is in supplying the poorer women of the Hindu and Mussulman communities with a means of livelihood, by training them in industrial and technical work. The Missions do something towards this, by teaching lace-making and embroidery, but it seems very desirable that much more should be done in this direction than has hitherto been attempted. It cannot, however, be done without funds, and hitherto these have not been forthcoming. Government gives aid for Industrial Schools, but the conditions are somewhat difficult to comply with and funds must already exist before Government will give grants.

AND.

I trust that I have been able to show that there are very real reasons why the women of India should be educated; that, notwithstanding many difficulties, much is being done for their education, by Government, by Missionaries, and, to some extent, by the people themselves, and that we are endeavouring to educate them wisely, carefully and thoroughly, with a view to make them good women, good wives, and good mothers.

As regards the support of the schools, some say that Government and the Indian people should do everything? But the people are poor, and the funds at the disposal of Government are but limited, and are necessarily hedged about with conditions. It often happens that a pupil might be retained at school, a teacher sent for training, or a new school established, if I could at once find the funds; but if I have to wait for the consent of the Government, or conform to a difficult, though necessary, Government rule, the opportunity often passes and does not return. For instance, I have been trying for nearly ten years to establish a girls' school in the town of Kavali, in Nellore. An unusually enlightened man has lately been appointed as Magistrate, and, with his help, one of my assistants opened a school there last December. I halted at Kavali for a day or two in March, and sent my *peon* to look for the school. He returned to say that there were only six scholars, and two were out of the town, but the Magistrate was coming to see me. When he came, he explained that the people were too ignorant to pay fees, and that he had himself paid their teacher until the end of February, but since he had ceased to do so, the school had dwindled away. He said that a girls' school was required in the town, and that, if I could suggest a means of support for the teachers until the first Government grant was due, he himself would undertake to fill the school with scholars. Happily I had a small sum of money in hand, provided by the National Indian Association. I at once promised Rs. 5 a month. The Magistrate fulfilled his promise, and Kavali now has a very fair girls' school. Had there been no private fund to fall back upon, this could never have been established. As many as twelve girls' schools have been started much in the same way, in backward places in my Range, by means of sums sent by the National Indian Association. Of these, nine have become permanent and are very fairly efficient. Scholarships have, during the last two years, been granted to thirteen girls' schools from the Association's funds. It will thus be seen that small grants to accomplish substantial and valuable work, and I may add that this work might easily be doubled and trebled, if more funds were available. We have often to refuse help where it is really wanted, because we have not sufficient money to grant it.

It is therefore with peculiar pleasure that I have heard of the Educational Fund, begun by the National Indian Association, for it seems like the beginning of the fulfilment of my dream of a large National Fund for the Education of Indian Women. I have often longed for one for this purpose, similar to Lady Dufferin's Fund for providing Medical Aid for the women of India. It would be of the greatest value for improving schools, establishing new schools, training teachers, providing scholarships, extending Home education, developing industrial and technical education, strengthening and extending teachers' associations, and fostering and improving vernacular literature for girls and women. It would also, I feel sure, tend to develop, rather than hinder, self-help among the people themselves. The establishment of a school, or Home class, in one town, almost always results in the opening of similar ones in neighbouring towns, and most of the instances of such self-help that I know of in India have been called forth by admiration of educational work done by the Government, or by Missionaries, or by the National Indian Association.

UNIVERSITY OF MADRAS.

The following Candidates have passed the B.A. DEGREE EXAMINATION (OPTIONAL BRANCHES) held in January 1891:—

Rank.	Register Number.	Name of Candidate.	Where educated.
BRANCH I.			
FIRST CLASS.			
	64	Tyagaraja Aiyar, V. R. ...	Kumbakonam College.
SECOND CLASS.			
1	20	Krishnaswami Aiyar, S. (Sankara) ...	Kumbakonam College.
2	12	Harris, John ...	Madras Christian College and Private study.
3	67	Vembu Aiyar, D. ...	Kumbakonam College and Private study.
4	63	Symasundara Rau, Jiddu ...	Maharaja's College, Vijayanagaram, Madras Christian College and Private study.
5	7	Gangadharan, D. S. ...	Kumbakonam College and Private study.
	24	Nagaratnam Pillay, Tirunagesvaram.	Madras Christian College.
THIRD CLASS.			
1		Arunachala Rau, Roddam ...	Central College, Bangalore.
3		Chidambaram, P. M. ...	Presidency College and Private study.
5		Dakshinamurti, Duri Sambasiva.	Maharaja's College, Vijayanagaram.
10		Gopalara, Pemmaraju ...	Rajahmundry College and Private study.
14		Jagannathan, K. ...	Madras Christian College and Presidency College.
16		Krishna Aiyangar, Mangalam ...	Private study.
17		Krishna Aiyar, S. ...	Kumbakonam College.
18		Krishnamachari, Vankipuram ...	Rajahmundry College.
22		Lakshmiapataya, Venkatachala.	Central College, Bangalore.
26		Narasimham, Kandala ...	Rajahmundry College.
28		Narayanaswami, B. S. ...	Presidency College, S.P.G. College, Trichinopoly, and Private study.
29		Narayanaswami Aiyar, R. ...	St. Joseph's College, Trichinopoly.
31		Pattabhirama Pillai, Tiruppakuli.	Madras Christian College.
33		Periyannayakam, Crusu ...	Caldwell College, Tuticorin.
38		Ramakrishna Aiyar, K. Venkatachala.	Presidency College and Private study.
46		Rangachari, Vanbakkam (Krishnamachari).	Do. and do.
50		Satyanna, Adurti ...	Rajahmundry College.
55		Srinivasa Aiyangar, Vangal Tiruvenkata.	Private study.
57		Subba Rau, Gokern ...	Madras Christian College.
69		Venkatappayya Sarma, Uppuluri.	Rajahmundry College and Private study.
70		Venkata Ramadas, Mandayaka.	Maharaja's College, Vijayanagaram.
72		Venkateswarudu, Yanamanara.	Rajahmundry College and Private study.
73		Venkayya, Pochiraju ...	Do. and do.
BRANCH II-A.			
SECOND CLASS.			
1	174	Sivarama Aiyar, Kalpatti Vaidyanatha Aiyar.	Madras Christian College.
2	81	Appayya Dikshitulu, Kolichim.	Rajahmundry College and Private study.
3	209	Venkataswaraya Rau, Arripirala.	Rajahmundry College.
4	100	Kasturi Aiyangar, Swami Aiyangar.	St. Joseph's College, Trichinopoly.

Rank.	Register Number.	Name of Candidate.	Where educated.
SECOND CLASS—contd.			
5	115	Kuppuswami, Periyakolam S.	St. Joseph's College, Trichinopoly, and Madras Christian College.
	107	Krishnaswami, Anbil	Madras Christian College and Central College, Bangalore.
6	116	Lakshmana Aiyar, Sessa	Madras Christian College.
	133	Natesa Aiyar, N. S.	St. Joseph's College, Trichinopoly.
	192	Subrahmanya Aiyar, G. P.	Kumbakonam College and Presidency College.
9	200	Suryanarayana Aiyar, Enjeti	Madras Christian College.
	94	Gopalakrishna Aiyar, Nuggihalli	Central College, Bangalore.
11	129	Narayana Reddi, Jyoti	Madras Christian College.
	97	Gurupada, Devadasan	Do.
13	145	Ramachandra Rau, Aiyagari	Private study.
15	88	Chintamani, Keduvali	Central College, Bangalore.
16	92	Gopala Aiyangar, Nuggihalli	Do.
	176	Srinivasa Aiyangar, Heremagalur	Do.
17	218	Venkoba Rau, Tanjore	Do.
19	114	Krishnaswami Sastri, T. P.	Kumbakonam College and Presidency College.
	136	Panchapagesa Aiyar, G. V.	St. Joseph's College, Trichinopoly, and Presidency College.
21	85	Chandrasekhara Aiyar, Mangudi R.	Madras Christian College, S.P.G. College, Trichinopoly, and Private study.
	120	Miranda, Salvador	St. Joseph's College, Trichinopoly.
23	178	Srinivasa Aiyangar, R. (Rama)	Kumbakonam College and Presidency College.
	28	Venkatadasappa, Salagame	Central College, Bangalore.
THIRD CLASS.			
	80	Appayya, S.	Kumbakonam College and Presidency College.
	93	Gopalakrishna Aiyar, Tenkasi R.	Madras Christian College, Kumbakonam College, and Private study.
	98	Jayarayappa, Konanore	Central College, Bangalore.
	102	Krishna Aiyar, Kalpati Padmanabha Pattar.	Madras Christian College.
	110	Krishnaswami Aiyar, Sellappa Aiyar.	Kumbakonam College and Presidency College.
	112	Krishnaswami Aiyar, Samudram V.	Madras Christian College and Private study.
	119	Manakshisundaram, M. S.	Kumbakonam College and Presidency College.
	123	Nagappa, Somanatha Uliya	St. Joseph's College, Trichinopoly, and Central College, Bangalore.
	132	Narayanawami Nayudu, Esabatti.	Central College, Bangalore.
	138	Pattabhiraman, D. R.	St. Joseph's College, Trichinopoly, and Private study.
	142	Rajaratnam Chetti, Pudur	Madras Christian College.
	144	Ramachandra Aiyar, G.	St. Joseph's College, Trichinopoly.
	148	Rama Rau, Nagalamadaka	Central College, Bangalore.
	150	Rama Rau, Yedatur	Do.
	154	Ramaswami Aiyar, Kuppuswami	Madras Christian College and Presidency College.
	161	Ranoji Rau, Bombari Santuram.	Central College, Bangalore.
	162	Ratnasabhapati Mudali, Anaikataputtur.	Madras Christian College.
	165	Sandanaswami Pillai, S.	St. Joseph's College, Trichinopoly.
	179	Srinivasa Aiyangar, Sessa	S.P.G. College, Trichinopoly.
	183	Srinivasaraghava Aiyangar, A.	Kumbakonam College and Presidency College.

Rank.	Register Number.	Name of Candidate.	Where educated.
THIRD CLASS—contd.			
	187	Subharaman, Venkatesvara	St. Joseph's College, Trichinopoly, and Private study.
	188	Subha Rau, Karodi	Central College, Bangalore, and Private study.
	193	Subrahmanya Aiyar, Sekharipura V.	Madras Christian College.
	199	Suryanarayana Rau, Basavaraju	Madras Christian College & Private study.
	201	Suryaprakasam, Rallapalli	Rajahmundry College and do.
	205	Tirumala Rau, Killanki	Madras Christian College and do.
	210	Venkataraman, O. N.	St. Joseph's College, Trichinopoly.
	213	Venkata Reddi, Puvvada	Madras Christian College.
	214	Venkatasubha Rau, Vemuri	Private study.
	215	Venkatasubha Rau, Yarraguntla	Rajahmundry College.
	216	Venkatesvara Aiyar, Nurni Muttu Aiyar.	Madras Christian College and Private study.
	219	Virabhadra Rau, Vanka	Rajahmundry College.
	221	Vaidyanathan, V.	Kumbakonam College and Madras Christian College.
BRANCH II-B.			
SECOND CLASS.			
1	235	Krishnan Pandala, K.	Maharaja's College, Trivandrum, and Presidency College.
2	222	Govindan Tampi, Padmanabhan Tampi.	Do. and do.
3	245	Nann Pillai, Velayudham Pillai.	Do. and do.
4	226	Cornelius, Joseph, D.	Nizam College, Haidarabad, and do.
5	236	Krishna Pillai, Padmanabha Pillai	Maharaja's College, Trivandrum, Madras Christian College, and Private study.
6	246	Narayana Aiyar, Padmanabha Sastri.	Maharaja's College, Trivandrum.
7	232	Kesava Pillai, Krishna Pillai	Do. and Private study.
	261	Subrahmanya Aiyar, Kadiramangalam S.	St. Joseph's College, Trichinopoly, Madras Christian College, and Presidency College.
9	253	Framji, Perozsha Sorabji	Doveton College, Vepery, and Presidency College.
10	252	Paramu Pillai, Kesava Pillai	Maharaja's College, Trivandrum.
11	243	Muhammad Ismail	Presidency College.
THIRD CLASS.			
	222	Alexander, Givarghese	Maharaja's College, Trivandrum, and Private study.
	224	Appaswami Aiyar, T. Srinivasa Aiyar.	Maharaja's College, Trivandrum.
	240	Madhu Kurukkal, O. K.	Do. and Private study.
	242	Majunatha Baliga, Buntwal	Presidency College.
	250	Sankaralingam Pillai, Kanaku Palaniyandi.	Maharaja's College, Trivandrum, and Private study.
	253	Srinivasa Rau, Nelpumparambil G.	Maharaja's College, Trivandrum, and Presidency College.
	259	Srinivasa Sastri, Calamur	Presidency College and Private study.
	403	Sundararaja Aiyangar, K. Tirumalai.	Maharaja's College, Trivandrum, and Presidency College.
BRANCH III-B.			
SECOND CLASS.			
	271	Rangachari, Kadambi	Pachaiyappa's College.

Rank.	Register Number.	Name of Candidate.	Where educated.
BRANCH III-C.			
FIRST CLASS.			
	289	Venkata Rau, Hosangadi ...	Madras Christian College and Presidency College.
SECOND CLASS.			
1	288	Subrahmanya Pillai, Pudupet ...	Presidency College.
2	290	Venkatesvara Aiyar, V. Rama-swami Pattar ...	Madras Christian College.
3	274	Eapen, Kuriyan ...	Do. and Presidency College.
4	281	Nagar Miran, P. N. ...	Presidency College.
5	287	Subha Rau, Rang ...	Do.
6	278	Madhavan Nayar, Vatakapat ...	Do.
7	277	Krishnamachari, Kondamur ...	Madras Christian College.
THIRD CLASS.			
	276	Kesava Aiyangar, Nagamangalam ...	Presidency College.
	283	Ramachandra Kamthi, Mangalore ...	Do.
	291	Verghese, Maman ...	Madras Christian College.
BRANCH III-D.			
SECOND CLASS.			
	292	Narayana Rau, Hattangadi ...	Presidency College.
BRANCH IV.			
FIRST CLASS.			
	351	Narayana Aiyar, Trichur Sanku-mani Aiyar.	Presidency College.
SECOND CLASS.			
1	383	Ravi Varma Raja, M. ...	Maharaja's College, Trivandrum.
2	371	Devarajulu Nayudu, Maljetti ...	Presidency College.
3	370	Ramakrishnayya, Vishnubhotla ...	Madras Christian College.
4	361	Rajaraja Varma Raja, M. ...	Maharaja's College, Trivandrum.
5	332	Krishnaswami Rau, R. ...	Kumbakonam College.
6	400	Srinivasan, Anna Aiyar ...	Madras Christian College and Private study.
7	320	Kantayya, Asuri ...	Rajahmundry College.
8	343	Madhava Rau, Dasu ...	Do. and Presidency College.
9	393	Simhachalapati Rau, O. ...	Maharaja's College, Vijayanagaram, and Private study.
10	399	Srinivasacharulu, Panappakkam ...	Presidency College.
11	394	Sivachidambara Rau, Kattamuri ...	Madras Christian College.
THIRD CLASS.			
	294	Aiyaswami, Tenkarai Anna-swami Aiyar.	Madras Christian College.
	295	Aiyaswami Aiyangar, N. R. ...	St. Peter's College, Tanjore.
	297	Ananda Rau, Gulvadi ...	St. Aloysius' College, Mangalore, and Madras Christian College.
	300	Arumukham Pillai, T. A. ...	Madras Christian College.
	301	Benjamin, T. Kuruvilla ...	Do.
	303	Bhashyam Aiyangar, Pundi ...	Pachaiyappa's College.
	304	Bhama Rau, Badami ...	Madras Christian College.
	306	Bhushayya, Madduri ...	Do.
	308	Cheriyar, T. Itty ...	Maharaja's College, Trivandrum, and Madras Christian College.
	313	Gangadhara Somayajulu Gollakota.	Madras Christian College.
	314	Gangaram, Kurella ...	Maharaja's College, Vijayanagaram, and Private study.
	318	Govinda Pillai, C. mara Pillai ...	Maharaja's College, Trivandrum, and Private study.
	319	Kalyanasundara Aiyar, C. Ramakrish	Pachaiyappa's College and Presidency College.

Rank.	Register Number.	Name of Candidate.	Where educated.
THIRD CLASS—contd.			
321		Krishnamachari, Mandayam Chakravarti.	Presidency College and Private study.
325		Krishnan, V. ...	St. Peter's Coll. Tanjore, & Private study.
326		Krishna Pillai, R. A. ...	Maharaja's College, Trivandrum, and Private study.
329		Krishnaswami Aiyangar, S. ...	Presidency College and Private study.
330		Krishnaswami Aiyar, Calavai ...	Madras Christian College.
331		Krishnaswami Aiyar, T. ...	St. Peter's College, Tanjore.
333		Krishnaswami Rau, Ranjanagadi.	Madras Christian Coll. and Private study.
334		Krishna Variyar, Kuthanur Vairiyath.	Presidency College and do.
337		Kuriyan, Punithara Pilo ...	Madras Christian College.
339		Machayya, Malati ...	Do. and Private study.
340		Madhavan Nayar, Chingacham Vittal.	Presidency College.
342		Madhava Rau, Chitrachavadi ...	Do.
349		Narasimham, T. S. ...	St. Peter's College, Tanjore.
352		Narayanaswami, Arcot ...	Madras Christian College.
353		Padmanabham Nalam ...	Rajahmundry College and Madras Christian College.
354		Panchapagesa Aiyar, Trichinopoly.	Presidency College, Madras Christian College, and Private study.
356		Ponnuaswami, G. Samuel ...	Private study.
357		Ponnuaswami Aiyar, Odaiyarpalayam R.	Kumbakonam College and Private study.
359		Ragavendra Rau, Sama ...	Pachaiyappa's College.
360		Raghavendra Rau, Udiavar ...	Presidency College and Private study.
363		Ramachandrudu, Venneti ...	Rajahmundry College.
366		Ramakrishna Aiyar, Pannimadai Krishna Aiyar.	Presidency College.
369		Ramakrishna Rau, Padubidri ...	Do. and Private study.
374		Ramaswami, Vutta ...	Madras Christian College.
375		Ramaswami Aiyar, S. ...	Presidency College and Private study.
376		Ramaswami Aiyar, T. S. ...	Pachaiyappa's College.
377		Ranganada Mudali, C. G. ...	Madras Christian College.
381		Rangaswami Aiyangar, Vanbakam.	Do.
384		Ryu Nambiyar Ayillyath ...	Presidency College and Private study.
385		Salvapattirau, Marakani ...	Madras Christian College.
392		Seshachari, Pundi M. ...	Do. and Private study.
396		Soma Rau, Gambhiram ...	Madras Christian College and Presidency College.
398		Srinivasa Aiyangar, Ramanuja ...	Kumbakonam College and Presidency College.
403		Srinivasa Sastri, K. V. ...	Presidency College and Private study.
407		Subrahmanya Aiyar, P. Krishna Pattar.	Madras Christian College, Presidency College, and Private study.
410		Suryanarayana, Simhadri ...	Maharaja's College, Vijayanagaram, and Private study.
411		Teyyan Menon, Tonore ...	Madras Christian College and Private study.
413		Tiruvankattattan, S. ...	St. Peter's College, Tanjore.
415		Udayavarma Raja, M. ...	Maharaja's College, Trivandrum.
416		Vaidyanatha Aiyar, N. Appaturai Aiyar.	Pachaiyappa's College.
417		Vaidyanathan, G. S. ...	St. Peter's College, Tanjore.
418		Venkatachala Aiyar, Nochur Ramaswami Pattar.	Madras Christian College.
419		Venkatachari, Madurantakam Bueli.	Pachaiyappa's College.
420		Venkatanarayana, Vadapalli ...	Rajahmundry College and Presidency College.
427		Visvanathayya, Udiavar ...	Presidency College.
428		Yezadiyan, David ...	Madras Christian College.

Rank	Register Number	Name of Candidate.	Where educated.
BRANCH-V.			
FIRST CLASS.			
1	418	Etirajulu Nayudu, Pokala	Pachaiyappa's College.
2	414	Desikachari, Pundi	Do
3	410	Chengayya, Maidavolu	Madras Christian College.
SECOND CLASS.			
1	499	Ramachandra Rao, Pudukota Venkata.	Madras Christian College.
2	443	Dakshinamurti, M.	St. Joseph's College, Trichinopoly.
3	515	Saldanha, Jerome Antony	St. Aloysius' College, Mangalore, and St. Joseph's College, Trichinopoly.
4	517	Srinivasa Rao, Sivivalla	Madras Christian College.
5	439	Bhimayya, Puruvangala	Do.
6	511	Ratnaswami, S.	St. Joseph's College, Trichinopoly.
7	470	Krishnaswami Rao, Raghunatha.	S.P.G. College, Trichinopoly, and Madras Christian College.
8	503	Raman Tambi, Paramesvaran	Pachaiyappa's College.
9	524	Tambi.	Do.
10	533	Siqueira, Bonaventure	St. Aloysius' College, Mangalore.
11	546	Subha Rao, Harihara	Madras Christian College.
12	434	Vasudeva Aiyar, Aiyar Aiyar	Do.
13	450	Appaswami Aiyar, K.	St. Joseph's College, Trichinopoly, and Pachaiyappa's College.
14	549	Ganapati, Pudukota R.	Presidency College.
15	491	Venkataramayya, Devandhalli.	Madras Christian College.
16	511	Paramesvara, Uthil	St. Aloysius' College, Mangalore.
17	435	Ramaswami Aiyar, Srinivasa	Madras Christian College.
18	465	Arulanandam, M.	St. Joseph's College, Trichinopoly, and Private study.
19	516	Krishnamachari, R.	Presidency College.
20	545	Saldanha, Joseph Manual	St. Aloysius' College, Mangalore, and Private study.
21	463	Subrahmanya Sastri, S.	St. Joseph's College, Trichinopoly.
22	441	Krishnaswami Aiyangar, V. S.	Do. and Private study.
23	456	Chinnappa Aiyar, Mosur	Private study.
24	517	Janakirama Reddi, Conjeeveram.	Madras Christian College.
25	463	Sankhamurti Rao, T.	Kumbakonam College.
26	453	Krishnaswami, S.	Presidency College.
27	473	Gopalakrishna Rao, R.	S.P.G. College, Trichinopoly.
28	513	Madhava Rao, Mekoti	Presidency College and Kumbakonam College.
29	489	Ramachari, Kondangi	Pachaiyappa's College.
30	491	Aiyala Nayudu, Malepati	Do.
31	491	Parsons, Jessie	Presidency College.
32	517	Kerala Varma Koil Tampuran	Private study.
33	456	Venkatarachari, Conjeeveram Pa-	Pachaiyappa's College, Madras.
34	489	Sankhamurti	Do.
35	453	Sankhamurti Aiyar, R.	Kumbakonam College.
36	443	Sankhamurti Aiyar, S.	St. Joseph's College, Trichinopoly, and Private study.
37	456	Venkatarachari, Namangalam	Madras Christian College.
38	453	Venkatarachari, Namangalam	St. Joseph's College, Trichinopoly.
39	453	Venkatarachari, Namangalam	Do.
40	453	Venkatarachari, Namangalam	Do.
41	453	Venkatarachari, Namangalam	Do.
42	453	Venkatarachari, Namangalam	Do.
43	453	Venkatarachari, Namangalam	Do.
44	453	Venkatarachari, Namangalam	Do.
45	453	Venkatarachari, Namangalam	Do.
46	453	Venkatarachari, Namangalam	Do.
47	453	Venkatarachari, Namangalam	Do.
48	453	Venkatarachari, Namangalam	Do.
49	453	Venkatarachari, Namangalam	Do.
50	453	Venkatarachari, Namangalam	Do.

Rank	Register Number	Name of Candidate.	Where educated.
THIRD CLASS.			
431		Alavandar Chetti, Chinnata	Madras Christian College.
432		Amirtanayakam, Appavu	S.P.G. College, Trichinopoly, and Private study.
433		Appan Aiyangar, Tirumalisai	Presidency College.
438		Rhima Rao, P. V.	S.P.G. College, Trichinopoly, and Private study.
442		Chinnaswami, S. K.	St. Joseph's College, Trichinopoly, and Private study.
445		Durniswami Aiyangar, Kummat- tur.	Madras Christian College.
446		Duraiswami Sastri, C. V.	Kumbakonam College and Presidency College.
454		Gururaja Rao, Dharwad	Madras Christian College and Private study.
467		Krishnaswami Aiyangar, S. Ra- naswami.	St. Joseph's College, Trichinopoly, and Madras Christian College.
472		Kuppuswami Aiyangar, A. Ven- katachari.	Madras Christian College.
477		Martanda Varma	Private study.
486		Narayanawami Aiyar, M. S. (Subrahmanya).	Presidency College and Private study.
493		Parsons, Phoebe Florence	Presidency College.
494		Raghava Aiyar, Pallavaram	Madras Christian College.
496		Rajagopalachari, Madambai	Do. and Private study.
498		Rama Aiyar, Mathur Sivarama Pattar.	Pachaiyappa's College.
500		Ramachan Nallangadi, Azhutha- chan Kalathil.	Presidency College.
502		Ramanatha Rao, Tirupattur B.	Do. and Private study.
504		Ramanujachari, Conjeeveram Nadadur.	Madras Christian College and Pachai- yappa's College.
505		Ramanuja Pillai, Thottakkadu.	Madras Christian College.
509		Ramaswami Aiyar, B. C.	Kumbakonam College and Private study.
519		Sequeira, Joseph Salvador	Presidency College and Madras Christian College.
522		Seshagiri Prabhoo, Madhava	Private study.
525		Sivarama Aiyar, Rajanga	Presidency College and Private study.
526		Sivarama Aiyar, Tirupattur Su- bharaya.	Madras Christian College and do.
532		Subha Rao, Bapu	Madras Christian College.

(By order.)

Senate House, 6th March 1891.

W. H. WILSON, Ph.D.,

Registrar.

UNIVERSITY OF MADRAS.

TO THE PRINCIPALS OF ARTS COLLEGES.

Considerable misconception appears to exist in the minds both of Principals of colleges and of candidates with regard to the necessity for forwarding certificates of attendance for the whole period of study at affiliated colleges, and the Syndicate, therefore, think it well to inform Principals

(1) that the only evidence of having studied at any particular college which will be accepted by the University is certificates, drawn up in the prescribed form and signed by the Principal of that college,

(2) that the whole period of study should be covered by such certificates, and

(3) that, in the event of no such certificates being given for one or both of the terms of the year in which the candidate appears for the examination, he will be regarded as having studied privately during that period.

Candidates who appeared for the recent First Arts or B.A. degree examinations without presenting a certificate of having attended an affiliated college during either term of last year, and who in consequence, have been classed as private students, but whose applications for admission to the examinations have been signed by the Principal of a college, as a special case, will be credited to that college in the annual report of the Syndicate and in the University Calendar; the Syndicate, however, wish it to be understood that in the future the rule to the contrary will be strictly enforced.

SENATE HOUSE, }
20th March, 1891: }

(By order.)

W. H. WILSON,
Registrar.

PROCEEDINGS OF THE DIRECTOR OF PUBLIC INSTRUCTION.

No. 2218 dated 4th March 1891.

Chairman of Municipal Councils, spending at least 15 per cent. of the income derived from Rents and Taxes on Education, will be informed that with effect from the 1st April 1891, the Director is prepared to grant aid for Supervisors of Municipal Primary Schools under Article 29 of Chapter II of the Code. No aid is, however, claimable for Inspecting Schoolmasters—whose duties relate to the inspection of Primary schools under Private management—the salaries of such Agents being wholly a Municipal charge. If an officer so designated, has for his chief duty the supervision of Municipal schools, his designation should be changed to that of Supervisor to allow of a grant being claimed on his account. The Director offers this aid as he considers that the employment of such officers will tend to make Municipal Primary schools much more efficient and far more acceptable to the people than in many cases they are at present.

(Signed) H. B. GRIGG,
Director of Public Instruction.

EDUCATIONAL NOTIFICATIONS.

APPOINTMENTS, LEAVE, &c.

Fort St. George Gazette, March 3, 1891.

Mr. E. P. Metcalfe, Principal, Rajahmundry College, furlough for six months from or after the 10th April 1891, under Article 340 of the Civil Service Regulations.

Surgeon-Major T. H. Pope M.D., to act as Professor of Chemistry, Medical College, during the absence of Surgeon J. L. VanGeyzel, M.B., on leave, or until further orders.

Miss E. Carr, Junior Inspectress of Girls' Schools, to act as Senior Inspectress of Girls' Schools in the Southern and Western Circles during the absence of Mrs. Brander on leave, or until further orders.

Miss S. Govindarajulu to act as Junior Inspectress of Girls' Schools in the Northern and Central Circles, *vice* Miss Carr.

The above two appointments to have effect from the 15th July 1890.

Fort St. George Gazette, March 10, 1891.

M.R.Ry. P. Srinivasa Rao Pantulu, Assistant Inspector of Schools, Second Division, privilege leave for three months, with effect from the 10th February 1891, under Article 291 of the Civil Service Regulations.

M.R.Ry. Babu Bhagavati Charan Chatterjia, Sub-Assistant Inspector of Schools, Berhampore Range, to act as Assistant Inspector of Schools, Second Division, during the absence on privilege leave of M.R. Ry. P. Srinivasa Rao, or until further orders.

NOTIFICATIONS.

Under section 12 of Act XXVII of 1857, the Right Honorable the Governor in Council is pleased to authorize the affiliation to the Madras University of the Brennen College, Tellicherry, up to the First Arts standard, with effect from 1st January 1891.

The Right Honorable the Governor in Council hereby notifies that persons already in the Public Service will be admitted to the Primary School Examination up to the 31st December 1891, without the special sanction of Government, though their age may be over 25 years.

SALARY AND RESULTS GRANTS.

The Director of Public Instruction hereby notifies that grants from Provincial Funds will be given from 1st April next in the City of Madras for trained teachers in all departments and in all classes of schools aided or eligible for aid under Chapter II of the Grant-in-Aid Code, and for all other Lower Secondary and Primary Schools other than schools ordinarily aided from Municipal Funds, under Chapter III of the Code: provided the school concerned fulfils the conditions laid down in the Educational Rules of the 10th February 1891: provided further the school is needed in the locality in which it is situated; and provided also it is shown that the school needs aid or larger aid than at present allowed for its efficient management.

Office of the Director of Public Instruction,
Madras, 9th March 1891.

H. B. GRIGG,
Director of Public Instruction.

TRAINING SCHOOL FOR TEACHERS.

The Director of Public Instruction hereby notifies that under Article 1, Chapter VI of the Grant-in-Aid Code, he has recognized the A.B. Mission Training Institution, Bapatla, as fitted to train teachers of the Primary Grade Lower.

Office of the Director of Public Instruction,
Madras, 10th March 1891.

H. B. GRIGG,
Director of Public Instruction.

GRANTS AND FEES.

Managers of all Aided Colleges and Schools, Municipal, Local and Private, are informed that sanction for the resumption of payment of grant under Article II of Chapter II of the Grant-in-Aid Code for the year 1891-92 will not be accorded until the institution has been recognized in accordance with the provisions of Section III of the Educational Rules.

They are also informed that the same rate of fees as that hitherto levied in the Fifth Class should be levied in the Fourth and Fifth Forms.

Office of the Director of Public Instruction,
Madras, 11th March 1891.

H. B. GRIGG,
Director of Public Instruction.

HIGHER EXAMINATIONS IN SCIENCE, ART AND INDUSTRIES, APRIL AND MAY 1891.

Candidates for the ensuing Higher Examinations in Science, Art and Industries are informed that they will be expected to bring their drawing instruments with them for those subjects in which drawing is required. Drawing paper will be supplied to them at the examination.

Candidates in Advanced Agriculture at the ensuing Higher Examinations in Science, Art and Industries must submit their essays through the Principal of the Agricultural College before Wednesday the 22nd March 1891.

Candidates coming up in Surveying, Levelling and setting-out must submit their plans with the prescribed certificates and the original field notes to the undersigned before Friday the 1st April.

(By order.)

Office of Comr. for the U. C. S. Examinations,
Madras, 26th February 1891.

E. H. ELLIOT,
Secretary.

List of Subscriptions received by the Superintendent, L. A. Press, Madras, on account of the "Journal of Education," from 1st to 31st March 1891.

	RS.	A.	P.
Secretary, College Reading Room, Elphinstone College, Bombay, for 1890...	4	8	0
Mr. A. R. Srinivasa Iyer, Caddapah ... do. ...	5	8	0
Mr. K. Narasimham, Yellamanchelli ... do. ...	5	8	0
M. La Bouchardiere, Esq., M.A., Trivandrum ... do. ...	5	8	0
Do. do. do. ... for 1891 ...	4	8	0
A. G. King, Esq., Shimoga ... do. ...	4	8	0
Head Master, High School, Bijapur ... do. ...	4	8	0
Manager, Mission Middle School, Mulky ... do. ...	4	8	0
Mr. R. Sivasankara Pandiyaji, Madras ... do. ...	4	8	0
A. K. Pihool, Esq., Nelloor, Tellicherry ... do. ...	4	8	0
Rev. Mather Marie-des-Anges, St. Ann's, Mangalore ... do. ...	4	8	0
Head Master, St. John's School, Bangalore ... do. ...	4	8	0
Head Master, Residency High School, Hyderabad ... do. ...	4	8	0
Principal, Lutheran Fabricius Middle School, Pursewalkum ... do. ...	4	8	0
Principal, Native College, Madras ... do. ...	4	8	0
P. A. Stephen, Esq., Trichinopoly ... do. ...	4	8	0
Mr. T. S. Ganapathy Iyer, Kupubakorum ... do. ...	4	8	0
Head Master, Board Middle School, Vinukonda ... do. ...	4	8	0
Head Master, S. R. Middle School, Nannilam ... (Balance) ...	2	4	0
Rev. F. Lionel Marler, Gooty ... do. ...	4	8	0
Head Master, High School, Kollangode, Palghat ... do. ...	4	8	0
Rev. W. L. Chamberlain, Madanapalli, on account of the following for 1891:—			
Head Master, American Mission High School, Madanapalli ...	4	8	0
Do. do. do. Puuganur ...	4	8	0
Do. do. do. Middle School, Vayalpad ...	4	8	0
Rev. G. T. Washburn, Pasumalai ... for 1891 ...	4	8	0
Superintendent, English Baptist Mission School, Royapuram ... do. ...	4	8	0
Mr. A. Valliyana Moudaliar, B.A., B.L., Trivandrum ... do. ...	4	8	0
Head Master, Mahajana Sabha Middle School, Nannilam ... do. ...	4	8	0
President, Taluk Board, Coimbatore ... do. ...	4	8	0
Principal, P. R. College, Cocanada ... for October 1890 ...	0	8	0
Head Master, Venkatarathnum School, Cocanada, July to December 1890 ...	2	8	0
Rev J. Peacock, St. Thomé, Madras ... February 1890 to January 1891 ...	4	8	0
Do. do. do. ... February 1891 to January 1892 ...	4	8	0
Mr. Advata Brahma Sastri, Triplicane, December 1890 to November 1891 ...	4	8	0
President, District Board, Kistna ... September 1890 to August 1891 ...	4	8	0
T. Kistnasawmy Naidoo, Esq., B.A., Pudupet, April 1891 to March 1892 ...	4	8	0
Chairman, Municipal Council, Tinnevely, January and February 1890 ...	0	12	0
Mr. A. Gurusawmy, Hospet ... April 1891 to March 1892 ...	4	8	0
Head Master, Municipal High School, Cannanore ... for 1891 ...	4	8	0
Mr. Sripathy Suryanarayana Row, Bobbili ... do. ...	4	8	0

Rs. ... 171 0 0

105

The

Journal of Education

Madras

Vol. V.]

MAY 1891.

[No. 5.]

EDUCATIONAL CALENDAR AND DIRECTORY.

The following Supplements to the *Directory*, corrected up to date, will be published *positively* on or before May 15th,—I. Notification regarding the Government Examinations in Science, Art, Industries, and Commerce; II. The Lower Secondary Examination, III. Madras Educational Rules, IV. Prospectus of the Imperial Forest School, Dehra Dun, V. Revised Regulations relating to the Matriculation and First Arts Examinations of the University of Madras. The whole will occupy 90 pages. To those who have already purchased the *Directory* the price will be 8 annas including postage, to others 12 annas. Orders should be sent to Mr. V. Kalyanarama Iyer, Bookseller and Publisher, Esplanade, Black Town, Madras. The Rules relating to the Teachers' College, Saidapett, regarding which we have had enquiries, will be found at p. 392 of the *Directory*.

TEACHERS' ASSOCIATIONS.

The Teachers' Association, in connection with the Teachers' College, Saidapet, has now entered well upon the second year of its existence. Week by week, during term, the Association meets for debates on subjects of general educational interest, and once in every month a well-prepared paper on some specific educational topic is read and discussed. At the close of each term a public meeting is held and a paper read by an authority on the subject chosen. At present the Association numbers only some 40 members. We should have thought that, as a matter of course, every student of the Teachers' College would *ipso facto* have been a member of the Association; but as a matter of fact, roughly-speaking, only one half of the students apparently take sufficient interest in their profession to make them willing to sacrifice the small amount of money and time which membership involves. This is not a very hopeful sign for the Teaching profession. Teachers complain of the scant respect paid to their profession by the public, and of the little inducement held out, so far as salaries are concerned, to able men to enter the ranks. When teachers learn to respect themselves and their profession these desiderata will be supplied. There is a proverb common to many nations which says that God helps those who help themselves. We know no way in which the interests of teachers could be better served than by the active co-operation of the latter in such Associations as those under discussion. Apart from the advantages which they afford as ordinary Debating and Literary Societies, these Associations, being made up of members of the same profession, offer a splendid opportunity for watching over the common interests of Teachers, for eliciting common sympathy, discussing common grievances and forwarding common objects. They afford also a ready means for the registration of Teachers, than which nothing is so necessary for creating a professional status. But best of all they materially assist in subserving the true interests of education, and so may become a potent factor in moulding the destinies of a people. These advantages are so obvious that we confess we cannot understand the attitude of those Teachers, who, while thinking it worth their while to devote the better part of two years to learning the Science and Art of teaching,

yet do not, as a matter of course, consummate—and so reap the full advantage of—their training by joining an Association which would conserve and accentuate their position as trained teachers.

Consider what such Associations have done for the elementary teachers of England. We refer more particularly to the National Union of Elementary teachers. This Union has given Teachers a status which their position as Government servants alone would never have given them. Humble as it may be thought, the profession of Elementary teachers does really rank as a profession. The Union has been instrumental in raising the scale of salaries. It provides legal as well as material assistance to those of its members who stand in need of either. Its interests in the Legislature are carefully watched over by several members of Parliament who pose as its patrons, and the next General Election will doubtless see its able Secretary returned to Parliament as the Teachers' candidate. It has its weekly organ to disseminate its views, and it was directly owing to the agitation which the Union started against the pernicious cramming which the working of the Educational Code involved, that secured the withdrawal of the principle of payment by results, and the adoption of the more intelligent system by which the efficiency of elementary schools is now determined. Its annual conferences attract the attention of the nation. The highest educational authorities deem it an honour to take part in proceedings which the daily press minutely records. But the advantages of such an Association can be best estimated by comparing the relative position and prospects of the Elementary teachers with those of the Secondary teachers in England. There is no provision for training these latter. Any one may become a Secondary teacher or start a private school without any guarantee of ability or preparation for the work. Hence there is no professional vitality and no Association to look after the interests of the teachers. There are indeed annual conferences of *Head Masters*, but as might be expected these latter are mainly concerned in subserving what they conceive to be their own interests and the interests of their schools, and in assuming an importance which does not properly belong to them. Accordingly, Secondary teachers do not rank as members of a profession. Each man stands as an isolated individual and is entirely at the mercy of the Head Master; and until Secondary teachers in England undergo some sort of recognised

training and unite to conserve their interests, so long will they as teachers and Secondary Education generally be the losers.

In America it would seem that teachers sink the proverbial Yankee 'euteness for material advancement in the higher and nobler interests of their profession. They have their Associations and conferences *ad infinitum*; but the professional feeling which these evoke is subordinated, according to Mr. Fitch, to the laudable desire for true educational progress. So important are the words which convey the profound impression which this fact made on Mr. Fitch; than whom no one is better able to form an opinion on the subject, that we do not hesitate to quote them in full:—

"It will be observed that all the organizations I have described—local institutes, general conventions, reading circles, teachers' retreats—set before them two objects, and two objects only, self-improvement, and the improvement of education. There is a remarkable absence in America of discussions on what may be called the politics of education, or on the means of obtaining professional influence outside the profession itself. And it is to this singleness of purpose, to the essentially practical aim of the great gatherings of teachers, that one may fairly attribute the interest which is universally shown in them, the warm and respectful welcome which they receive from parents and local authorities as they itinerate from town to town, the large share of importance assigned to the meetings in the local press, and the extent to which the influence of the teaching body has steadily been enlarged during the last 60 years. Public opinion, after all, evinces a true instinct when it shows—as it always does—a certain distrust of trading and professional associations, obviously designed to keep up the scale of remuneration, to assert corporate rights and privileges, or otherwise to protect class interests. It has a suspicion that these interests are not necessarily or always identical with the large interests of the community. But it recognises and rightly recognises the national importance of any efforts by which teachers as a body seek to understand and to do their work better; and to keep themselves in due *râpport* with the communities whose needs they seek to supply."*

These words convey both an encouragement and a warning by pointing to the use and abuse of such Associations. In India they

* Notes on American Schools and Colleges, by Dr. J. G. Fitch, Macmillan & Co.

are especially applicable to those who are anxious to stimulate a professional feeling by developing Teachers' Associations in connection with the Teachers' College. A start has already been made. It remains for each individual teacher to say whether the movement shall develop as it deserves. The Teachers' College Association may be made the centre of ever widening influence, provided each student who leaves the college does so with increased respect for his work and is differentiated for good as a trained teacher from his less fortunate brothers. Having once been a member of the Association he should, as a matter of course, be anxious to keep up his connection with it, all the more so because he may be in some isolated station hundreds of miles away and will need the sympathy and encouragement which shall keep him from stagnating in his work. He will start, where practicable, a local Association in connection with the Parent Society. The Monthly or Sessional Periodical should record for him the doings of the various Associations and afford an opportunity for the expression of current views on education. At the annual conferences he will compare notes with his old friends, and with them discuss educational topics of national importance. Of this, too, he may be certain, that if the Association subordinates the politics to the higher interests of education, official sympathy and recognition will not be withheld, and in the end the interests of all concerned will be guaranteed.

On our first arrival in this country we were both astonished and gratified to find an apparently perfect piece of machinery for carrying on the education of this Presidency. We found a paternal government providing an education for all classes of society. We found Normal schools for training Primary teachers and a Training college for Secondary teachers affiliated to a University which offered a special degree for proficiency in the Science and Art of teaching. Our enthusiasm was somewhat damped, however, when a short experience revealed the fact that in spite of all this elaborate and expensive machinery the article turned out had not generally the true metallic ring. Neither the workmanship nor the material was found to be perfect. We were, therefore, not so much surprised, when we further discovered that so little professional interest was shown for education that each important town and locality had not its local Association of teachers all ramifying from one centre. If students will only learn and teachers teach in

the true sense of the word, and so learn to value education for its own sake, there will then come about a due sense of the importance of the latter which Teachers' Associations throughout the Presidency will stimulate to the good of the community at large.

THE GRANT-IN-AID CODE.

We hear that the conference of Inspecting officers that met under the presidency of the Director of Public Instruction on the 21st ultimo and following days had under their consideration chiefly the revision of Chapter III of the Grant-in-Aid Code, relating to Results grants. We are not aware of the actual changes introduced into the Code, but we are given to understand that the provisions have been much simplified and the restrictions on schools, especially those relating to schools with poor and backward classes and schools situated in backward localities, have been considerably relaxed. Both the changes are changes in the right direction. We hear complaints on all sides that the Madras Grant-in-Aid Code is unnecessarily complicated. Whilst the Bombay Code occupies 10 pages of the *Educational Directory*, and the Bengal Code is comprised in 5 pages, the Madras Code takes up 32 pages. We certainly do not see the need of such an elaborate Code. The fact of the matter is the present Code contains, in rather a confused form, the accumulated views and suggestions of all the Directors that the Department has had. The Results Grant chapter is especially very difficult to work on account of its complications and minutely detailed instructions. We therefore hail with delight the prospect of a simplified Results Grant chapter. In the report on Public Instruction for the year 1887-88 the Director pointed out the hardships Managers had to undergo on account of the estimate system and the restrictions as regards attendance. We trust the revised chapter will make the estimate system simpler, and be more lenient to Managers with regard to attendance, &c. It is true the restriction as regards minimum attendance, Art. 10 of the present Code, has resulted in discouraging a number of petty and inefficient schools under incompetent teachers, but still the effect of this article on schools with backward classes, and in backward localities has been injurious.

We do not know whether steps have been taken by the Director to revise Chapter II relating to Salary grants. In this chapter also there is a great deal that is unnecessary and that might well be brought under the head of Departmental instructions. Chapter IV is now practically a dead letter and should be omitted. Chapter V relating to grants for Technical education, also needs revision with reference to the development that this branch of education has undergone during Mr. Grigg's administration. The same remark also applies to Chapter IX.

FINANCE OF EDUCATION.

In the last issue of the Journal we referred briefly to that portion of the Government Order on the Public Instruction Report for 1889-90, relating to general statistics. We wish to make a few remarks here on the finance of education. The total expenditure on public instruction, including inspection charges, was Rs. 50,79,182, of which a sum of Rs. 14,04,604 was contributed from Provincial Funds, against Rs. 12,02,471 in 1888-89. We are glad to note a similar increase in expenditure from Local as well as Municipal Funds. It is a matter for regret however that the proportion of expenditure from Provincial Funds on Primary education is still low. Whereas 45 per cent. of the total Provincial expenditure was spent on University education and 17 per cent. on Secondary education only 9 per cent. was expended on Primary education. Compared with the year 1888-89, however, the proportion of expenditure from Provincial Funds upon University education diminished to the gain of Secondary and Primary education. One very satisfactory feature of the year was the increase in the fee receipts from Rs. 16,14,138 to Rs. 16,37,072. The average fee revenue has also shewn a tendency to rise during the past ten years, being Rs. 2.82 in the five years ending with 1889-90 against Rs. 2.56 in the preceding quinquennium. Coming to Grants-in-Aid we find that a sum of Rs. 7,93,546 was spent under this head from Public Funds, Provincial, Local and Municipal, against Rs. 7,18,727 in the previous year. The increase, however, is only shared by Provincial Funds, the expenditure under Grants-in-Aid from Local Funds actually diminished from Rs. 2,05,533 to Rs. 2,02,257, and that from Municipal Funds from Rs. 95,435 to

Rs. 88,751. This is a matter for serious consideration. The Local Boards and Municipalities are evidently not spending a due share of their income on Primary education. The Boards should be made to pay maximum grants to all Results schools, and they should also take upon themselves the responsibility of meeting the claims of Managers of Primary schools for building and other minor grants. The Director, we are aware, has no control over Municipal and Local Funds, and it is therefore incumbent on Government to see that the full allotments under Grants-in-Aid are paid by Local and Municipal Boards. We should not fail to notice here a very unsatisfactory feature of the working of the Results grant chapter. The Budget allotments for Results grants from Provincial, Local and Municipal Funds amounted to Rs. 5,35,840, out of this amount only Rs. 4,14,558 were expended, thus resulting in a saving of more than a lakh. We trust that under the revised chapter such lapses will be avoided as much as possible.

MR. WELLDON AND HIS CRITICS.

Mr. Welldon's articles in the *Contemporary Review* of last year have elicited much adverse criticism. We ourselves had occasion to protest against Mr. Welldon's apparent justification of 'cramming'; and now we notice that both Professor Freeman, the distinguished historian, and Mr. Quick, the author of *Educational Reformers*, have drawn swords with this comparatively young educationist.

Mr. Quick, in a foot-note in his *Educational Reformers*, strongly objects to Mr. Welldon's opinion that young boys should be placed, not indeed at a public school, but at a middle-sized boarding school. This is a subject which naturally cannot have much interest for the native community of this empire, but directly affects those Anglo-Indian parents who, in many cases, have no alternative but to place their children at an early age in English boarding schools. We agree with Mr. Quick that young children should live in a family (their own if possible) and go to a day school. "What are called preparatory schools," says Mr. Quick, "labour under this immense disadvantage, that their ruling spirits are mere children without reflection or sense of responsibility." If a preparatory boarding school is a parent's only resource, he should choose

as large a one as possible; for the moral tone of a large school is proverbially higher than that of a small school, in which a few vicious and tyrannical boys generally have the complete mastery over the younger boys. Our own opinion, based on some experience, is that the best possible training for young boys is in the combination of home influence with the discipline of good public day schools, such as are springing up on all sides in England.

Professor Freeman, in the March number of Macmillan's Magazine, plays with Mr. Welldon's assertiveness with elephantine humour. An American professor, with more epigrammatic force than courtesy and truth, once stated that Professor Freeman had the manners and appearance of a Saxon swineherd before the Norman Conquest. Remembering, as we do, Carlyle's famous description of these same people, "a gluttonous race lumbering about in pot-bellied equanimity," we can appreciate the indignation with which the professor's words were greeted. Possibly the American had met Professor Freeman as an antagonist; if so we can understand why he should attempt to cover what must have been his complete discomfiture under such libellous words. For Professor Freeman is a most formidable antagonist, as those who remember the famous passage of arms between him and Mr. Froude over the Becket controversy can testify. He possesses unbounded resources in his unrivalled learning, his vigorous style and ponderous humour. All these advantages he brings to bear on Mr. Welldon's implied assertion of the right of the public schoolmasters to dictate to the older English Universities the withdrawal of 'Greek' from their curriculum. We think Professor Freeman is unfortunate in his defence of 'compulsory Greek,' and in choosing the latter as the war cry in the battle between the Universities and the public schools. We cannot help thinking that for educative purposes, the study of German is almost on an equality with Greek; while from a utilitarian point of view it is incomparably superior. But the question of the comparative value of Greek and German is only a side issue in the passage of arms between Professor Freeman and Mr. Welldon. The important principle of the inalienable independence of the Universities is the main issue, and here we are at one with the learned professor. Long before the public schools were dreamt of, the older English Universities had been in existence and had gained

a European reputation. The Public and Grammar schools of England were founded with the purpose of subordinating their curriculum as a preparatory course to the Universities. This is the relation which should always exist between the particular institutions under discussion. Once the public schoolmasters get the upper hand over the Universities, there will no longer be any guarantee for true intellectual development. The narrowing tendency of the schoolmaster's work and his purely professional way of looking at education, is acknowledged by most people. A healthy University, on the other hand, is the conservator of broad culture and offers every inducement to original thought and research.

The new-arrival in India is struck with the apparent anomaly of the close connection existing between the Universities and the schools. He finds the Director of Public Instruction, a Departmental officer, an *ex-officio* member of the Senate. He finds the University creating the special degree of L.T. (Licentiate in Teaching) for the convenience of graduate students under training at the Government Teachers' College; and lastly, he finds the University agreeing to accept as candidates for Matriculation, only such students as come from officially recognised schools. Those who are ever repeating that the system of education in India is a servile copy of the English system, forget that in this respect at least, viz., in the inter-dependence of the Education Department and the University, there is an essential difference. On a future occasion we may attempt to show in how many respects the Indian and English systems are radically opposed. On the relation between the Universities and the Education Department no parallel can be drawn between England and India. Universities and High Schools in India were alike created and fostered at one and the same time by a paternal government. Special circumstances require that the two should work together in the closest harmony, as was intended when both were started. The evil of the present arrangement is that the Universities lend themselves solely as examining bodies to the Secondary Schools and Colleges of the various Presidencies. This is doubtless a great evil. But we still hope to see the time when the Indian Universities, by becoming mainly teaching bodies, will perform a much higher function than that which is implied in the existing relation between them and the higher schools.

NEWS AND NOTES.

LOCAL AND INDIAN.

Government has ruled that for the present the expenditure of local bodies should be concentrated on general primary education.

We hear that a proposal of the Director to bring the agency of Inspecting Schoolmasters under Provincial Service, is now before Government.

In Primary schools for boys in this Presidency, more than 68 per cent. of the teachers are unpassed men; in Primary schools for girls, 50 per cent. are unpassed.

Mr. G. H. Stuart, of the Presidency College, will, we are informed, proceed on a year's furlough to Europe after the return to duty of Mr. Runganatha Mudaliar.

Bishop Corrie's Girls' School, Madras, will soon be an accomplished fact. The plans and estimates for the extension of the present buildings are, we hear, under preparation.

We are given to understand that a test is to be prescribed for regulating the first appointment and subsequent promotion of Assistant Inspectors of Schools to be called the Assistant Inspector's test.

Dr. Oppert, Professor of Sanskrit, Presidency College, and Mr. Moss, Acting Professor of History, Presidency College, have been allowed by Government to be retained in the service up to 31st March 1892.

The Secretary of State has been pleased to appoint Mr. Reginald Arbour Nelson, Barrister-at-Law, to fill the office of Principal of the new Law College at Madras. Mr. Nelson arrived in Madras on May 2nd.

We are glad to know that at the public meeting held in Madras on Friday, April 24th, it was resolved to start a School of Music. We hope that in time even the mofussil may feel the influence of the school.

Mr. Swamikunnu Pillai, M.A., L.L., Lecturer in Latin at the Presidency College, has been appointed a Deputy Collector. He is a young man with very good abilities, and we wish him every success.

During the absence of Mr. E. P. Metcalfe, Mr. J. M. Hensman, B.A., acts as Principal of the Rajahmundry College in the Fourth Class. The acting appointment was, we hear, first offered to Mr. S. Seshayya, B.A., of the Kumbakonam College.

The Government is pleased to permit the Pittapur Rajah's College, Cocanada, to be registered under Section 26 of the Indian Companies' Act (No. VI of 1882), with limited liability and without the addition of the words "limited" to its name.

Vizagapatam is, according to the latest report on Public Instruction, the most backward district in the Madras Presidency. The proportion of pupils to the population is 1 in 113; next comes Cuddapah with a proportion of 1 in 99, and then Anantapur with 1 in 91.

At the meeting of the Senate, May 4th, it was resolved to adjourn the debate on the Registrarship to 14th August, when the Senate will discuss the recommendation of the Government that the Registrar should not be a Fellow of the University.

We are glad to notice that Mr. Grigg, the Director of Public Instruction, kindly presided at the First Anniversary Meeting of the Saidapett Teachers' Association. He made an important and eloquent speech. The Association needs all the encouragement it can get. A full notice of the meeting will appear in our next issue.

One of the girls trained at St. John's Female Normal School, Nazareth, has been appointed to the charge of the Post Office at Mandapalalai in the Madura District. Women are employed in large numbers in the Post Offices in England, but in India it is quite a novelty, though it is just the kind of work for an educated girl.

The Needlework Exhibition of the National Indian Association, which was held at the beginning of last month, was a great success. Over 30 girls' schools from different parts of the Presidency competed for prizes, and the exhibits were of a superior quality. Much credit is due to Mrs. Grigg, the Vice-President of the Association, for the part taken by her in the Exhibition.

At the request of the Director of Public Instruction, the Secretary of State has sent to the Schools of Arts copies of Oriental carpets in the Indian Museum. The selection of the carpets has been made by Mr. C. Purdon Clarke, C.I.E., Keeper of the Indian Museum. They are of the style formerly seen in the palaces of Bejapoor and Jeypoor. The Director has deputed Mr. Havell, Superintendent, School of Arts, to visit the Technico-Normal School, Madura, and report on its working.

We have been pleased at receiving the Report of La Martinière College, Calcutta, for 1890. The Headmaster is the Rev. Aug. Wm. Atkinson, M.A., Fellow of the Universities of Madras and Calcutta, and sometime Headmaster of Bishop Corrie's Grammar School. The year reviewed in the Report was one of unrivalled success. Mr. Atkinson after nearly 15 years' Indian service, 7 at Bishop Corrie's, Madras, and 8 at La Martinière, Calcutta, has lost none of his energy and "go," but works with the same zeal as of old. We wish him and his Institution every success in the future.

Thomas Nicholas, a native Christian lad, trained by the Rev. A. Margöschis, who has been holding a scholarship at Bishop Corrie's School, Madras, for the last two years, passed the Matriculation Examination held in December in the first class and stood first in the whole school. Instead of taking up Tamil as his optional language, he chose Greek, with the result mentioned above, of which we feel proud and thankful. He also won the first Peter Cator prize of fifty rupees for Scripture knowledge, and obtained two class prizes. He is now in the enjoyment of a scholarship at S. Peter's College, Tanjore, where he is reading for the First in Arts Examination.

The following candidates have passed the L.T. degree examination held last March:—From the Teachers' College, Madras:—Kunjeraman Thaiyel Parthasarathi Moodelliar, Prakasa Rau, V. Ramaswamy Aiyar, T. S. Subrahmanya Aiyar, Vasudeva Rau, and Venkatasubha Aiyar. The following candidates passed the written examination, but failed in the practical examination for the L.T. degree held in March, in the Presidency College, Madras, viz.:—G. Raghmathachari, G. S. Ramayya Chittanur, Sankara Aiyar (S. Sundarasa Aiyar) M. R. Kanchi Aiyar, G. Perumkolam, Venkuswami Aiyar and Batiagunder; Private Study, viz.:—Martyn, Joseph Samuel, M.A., Ramanathan, M.A., and Stephen Yesadiyan.

"The superior intellect of the male persuasion," says the *Nazareth Quarterly Paper*, is "more often taken for granted than that it exists in reality. The lords of creation have so long had it all their own way, and especially in India, even amongst Christian Missions, that the girls have not been allowed even a chance. But now their star is in the ascendant and the greatest interest is taken in female education. One of the examiners in English at the recent University Examinations told us that the best average papers were written by the girls, although they did not obtain the greatest number of marks. In the English essay for the

B.A. Examination, the highest marks were obtained by a native Christian Brahmin lady; and at the recent Convocation of the Madras University a native lady took her degree in Medicine."

The Senate of the Madras University will proceed, in the month of July, to elect a Registrar for a term of five years, commencing on the 1st August. The salary of the appointment will commence at Rs. 600 per mensem, and rise by annual increments of Rs. 50. per mensem to Rs. 800 per mensem. The same person will be eligible for re-election, and in the event of his being re-elected the salary will continue at Rs. 800 per mensem. The Registrar will be required to devote his whole time to the duties of his office, and not to absent himself without the permission of the Syndicate. He will also be required to enter into an agreement with the Syndicate, particulars of which may be ascertained on applying to the Registrar. Applications from candidates for the appointment should reach the Registrar not later than the 1st July. We are given to understand that the Government is against the Registrarship being held by a Fellow of the University.

The following bifurcated course of studies for the Allahabad Intermediate examination, corresponding to the F.A. Examination of the Madras University, has been sanctioned by the Local Government and confirmed by the Governor-General in Council:—

- I. English.
- II. Mathematics.—Arithmetic, Algebra and Geometry.
- III. Deductive Logic treated thoroughly.
- IV. A classical Language and either
- V. History, or
- VI. Trigonometry, & Geometrical Conic Sections.

- I. English.
- II. Mathematics.—Arithmetic, Algebra and Geometry. } The same as in the A. Course.
- III. Deductive Logic.
- IV. Trigonometry and Geometrical Conic Sections as under VI of the A. Course.
- V. Elementary Physics and Chemistry.

The Educational Conference, which was held in Madras on the 21st ultimo and following days under the presidency of the Director of Public Instruction, was attended by the following officers:—M.R.Ry. C. Nagojee Row, B.A., Inspector of Schools, Northern Circle; Mr. George Bickle,

Acting Inspector of Schools, Central Circle; Mr. T. T. Logan, M.A., Inspector of Schools, Southern Circle; and Mr. E. Marsden, B.A., Inspector, Western Circle; Miss Carr, Inspectress of Girls' Schools, Western and Southern Circles; Miss Govindurajulu, Ag. Inspectress of Girls' Schools, Northern and Central Circles; Dr. D. Duncan, Principal, Presidency College; M.R.Ry. P. Vijiarunga Moodelliar; Mr. S. Sathianadhan, M.A., LL.B., Assistant to Director Public Instruction, on Special duty; M.R.Ry. A. C. Pranatharajah, Aiyer, B.A., Acting Assistant Inspector, 4th Division; M.R.Ry. P. Venkataramayya, Acting Assistant Inspector, 5th Division; M.R.Ry. N. Devasigamony Moodelliar, Acting Assistant Inspector, 6th Division; M.R.Ry. D. S. Kristnasamy Iyer, B.A., Assistant Inspector, 7th Division; L. C. Williams, Esq., B.A., Assistant Inspector, 8th Division; M.R.Ry. Ragunatha Chariar, B.A., Assistant Inspector, 9th Division; and Miss Pratt, Superintendent, Presidency Training School for Mistresses. The following papers were discussed at the Conference: Revised Chapter III of the Grant-in-Aid Code, the Inspection Code, the Inspecting Schoolmasters' Code, and the Revised Drafts of Sub-Assistant Inspector's test.

We heartily congratulate Mr. Syed Ali Bilgrami on his recent success, says a contemporary. On the 28th December last he left Hyderabad on three months' leave, in order, as his friends supposed, to enjoy a holiday. He had, however, resolved to go up for the law degree of the Calcutta University, and thinking it possible that on so short notice he might not succeed, he said nothing at all about his intention. On the 2nd March he appeared for examination with over 200 other candidates. The examination lasted six days and the result has just been published. Mr. Syed Ali comes out at the top of the list and wins the gold medal! This we fancy beats the record, and Mr. Syed Ali deserves the utmost credit, for his pluck and perseverance. His reputation as a scholar was already high, but this will add to it very considerably. The Hyderabad Government is to be congratulated on having in its service a man of such great ability. Mr. Syed Ali Bilgrami was a distinguished graduate of the Calcutta University, having passed the B.A. examination of that University from the Canning College, Lucknow. He was then sent by the Nizam's Government to England for special training along with Mr. Mirza Mehdi, now Census Commissioner of His Highness the Nizam's Dominions. Mr. Bilgrami passed his examinations in England with great credit. He is a well-known Sanskrit scholar of whom India may well be proud. It is a rare sight to find a Mahomedan gentleman taking so much interest in Sanskrit literature. Mr. Syed Ali's attainments in

Sanskrit drew the attention of the India Office, which presented him with some rare and valuable Sanskrit books. The University of Madras honoured itself by appointing Mr. Syed Ali an examiner in Sanskrit last year, and we note that he has again been appointed for the Examinations of 1891-92.

LITERARY AND GENERAL.

Baron Tanchnitz has, it is said, secured for his series Mrs. Humphrey Ward's forthcoming novel, "David."

The Registration of Teachers is attracting much attention in England. We hope yet to see the day when all teachers of whatever grade shall be registered. At present the profession is full of quacks.

One hundred and one students attended the Oriental Seminary of Berlin during the past winter session. We wonder how many students attended the Oriental lectures carried on by King's College and University College, in London.

Mr. W. Storr recently addressed the National Phonographic Society and drew attention to the fact that it was "a public calamity that at this juncture some half-dozen systems, or so-called systems, of shorthand were being forced upon the public attention."

It will interest the ever increasing band of shorthand writers in India to learn that there is a shorthand edition of "Tit Bits," price twopence. That such a publication should even have been thought of at a contemporary age, shows the enormous strides this study has made of late.

The study of modern languages, continental papers say, is to receive new encouragement in Prussia. The Cultus Ministerium intends establishing six annual "Modern Language Travelling Scholarships" of the value of 1,000 marks each, after the fashion of the existing Archaeological Travelling Scholarships.

The free library movement is making progress. Peterborough has declared in favour of the Act, as also has the Manchester suburb of Sale; and in the little town of Bowness, on the banks of Windermere, where there is already a small lending library, the subject is discussed. A new public library is to be built at Southampton.

Of Mr. Goschen's anticipated surplus of nearly £2,000,000, it is proposed that £1,000,000 be devoted to making education free after September 1st. This may doubtless prove a good electioneering cry, but will also prove to be a sorry bone of contention among educationists. We propose discussing the question of Free Education in a future number.

Among the latest American innovations are structural maps, i.e. maps in relief. "Five minutes' observation of one of these maps will give a picture for a lifetime,—one much more effective than can be obtained from a prolonged imaginative study of a plain map. There are no names, no political divisions, but clear strong lines and simple, artistic shading and the whole continent is a great "organism for life".

The report of the Council of the Society for the Preservation of the Irish Language says that during the past year over one thousand books more have been sold than in the previous year, thus bringing the total number of books sold since the Society was founded to over one hundred thousand. Though difficulties and drawbacks still hamper and impede the spread of the national language, nevertheless the movement advances. Nearly one thousand pupils presented themselves for examination in Irish during the past year in the national schools.

Kaiserliche is to have a school after the Emperor of Germany's own court. Latin and Greek are to be squeezed down to the minimum in it, and most of the time thus saved is to be devoted to English and French. The instruction in natural sciences, mathematics, and drawing is also to be expanded. The scholars will get just double the amount of gymnastic training they receive in other German schools of the class. The turning place is to be next to the street, and the building, with twenty-one model class-rooms, is to be away from the noise and dust of the pavements.

A new fellowship has been founded at Harvard University for the endowment of research, in connexion with the Peabody Museum of American Archaeology and Ethnology, and the first holder of the fellowship is a lady, Miss Alice C. Fletcher, who has already, as a special assistant of the Museum, done excellent work as an explorer among the North American Indians. The endowment, 30,000 dol., we learn from the New York Times, is the largest that has ever been given for a single fellowship. How long must Girton and Newnham wait for similar foundations?

We have to note with deep regret the death, on March 9th, of our old personal friend, Robert Hebert Quick. His loss to education cannot be over-estimated. When the Editor of this Journal sailed for India in May 1869, one of the last letters he received was a long and sympathetic one from dear old Quick, accompanied by a copy of his *Educational Reformers*, then recently published. We have read with much interest and pain the Supplement to the (London) *Journal of Education*, giving details of Quick's life-work and last hours. It is the fashion among a certain class of so-called educationists to sneer at professional enthusiasm, and to run down such books as Quick's *Educational Reformers*. Our contempt for such men is unbounded, no matter how high they may have stood in the class lists of the Universities to which they belong. Well would it be for the noble profession of Teaching, if our ranks could be weeded of these brilliant products of learning. Such men will usually be found to be most miserably deficient in all those qualities which go to make the true teacher. Well will it be for education when no man shall be allowed to teach who has not made a careful study of the art and practice of teaching.

The Bishop of Durham, in the course of an interesting address on "Ideals," said the word progress was unmeaning without reference to an ideal. Ideals were the meat and drink of life; they supported us, and, still more, they ruled us. The effort to give effect to our ideals brought with it a purifying power. The one great ideal in which we could often find rest was that which answered to the truth of things; it remained when all delusions passed away. The average man of business, the artisan, the miner, required a vision of the ideal, and they were capable of it. This vision of the ideal prevented monotony of work from becoming monotony of life. The simplest home offered a place for it, and no problem was pressed upon us now with more continuous urgency than how that place should be rightly filled. The University Extension Movement was one important help towards the solution of the problem. University teaching tended, he believed, with ever-accumulating force and directness, to quicken and to sustain ideals. It was structural, catholic, hospitable, tolerant, equalising, chastening, historical, personal, and spiritual. In concluding Dr. Westcott said:—"I see now that far more is within a measureable distance for nations and for men than seemed conceivable in my schooldays; thoughts whispered then with bated breath have become commonplaces. We know our dangers; in part we know our aims; in part we know our resources. We stand on the edge of a new age; it is for the young to shape it. To them we commit, without fear, our ideals and our faith."

REVIEWS AND NOTICES OF BOOKS.

ESSAYS BY THE LATE S. V. THOMAS, M.A., with Introduction by S. SATTTHIANADHAN, M.A., LL.B., (Cantab).

These are a collection of Essays on various Indian subjects which have already appeared from time to time in the *Christian College Magazine* and in the *Harvest Field*. The Introduction by Mr. Sattthianadhan is, as might be expected, an able one. It discusses each of the Essays in succession, and contains a very necessary allusion to the author's adoption of the epigrammatic and trenchant style of Macaulay. This peculiarity is particularly noticeable in the opening Essay on India's needs and the National Congress, the best written of all the Essays. Those who think that the Congress can bring about the salvation of India will do well to ponder over this Essay. The Essays generally would have been all the better if the style had been a little less rhetorical and a little more argumentative. Of the author's complete mastery of the English language these Essays bear abundant evidence, and it is to be lamented that so promising a young man should have been cut off thus early in his career. Many persons, especially those who are interested in the religious questions of India, will be pleased to possess these stray Essays in a permanent form.

AN APOLOGIE FOR POETRIE by SIR PHILIP SIDNEY. Edited for the Syndics of the University Press (from the Text of 1595) with Notes, Illustrations and Glossary, by EVELYN S. SHUCKBURGH, M.A., Librarian and Late Fellow of Emmanuel College, Cambridge. University Press Cambridge. 3s.

MILTON'S ARCADES AND COMUS, with Introduction, Notes, and Indexes, by A. W. VERITY, M.A. University Press, Cambridge. 3s.

The two foregoing works belong to the "Pitt Press Series," and are the most recent of the publications issued by the Cambridge University Press for School and College use. The first thing that strikes one, on turning over the pages of these companion volumes, is the immense amount of Notes, &c., compared with the Text itself. To the 62 pages of the *Apologie* there is an introduction of over 30 pages and Notes running to 102 pages; and to the 33 pages of *Comus*, there are 76 pages of Introduction, of which 35 refer particularly to *Comus*, and 134 pages of Notes on *Comus* alone, or just four pages of Notes to one of Text!

Mr. Shuckburgh has done his work well and thoroughly, and we have no hesitation in pronouncing his the most scholarly edition of the *Apologie* that has yet appeared. The Preface and many of the Notes will be read with keen interest by the gentlemen who recently edited the *Apologie* for students of the Madras University, as the former supplies bibliographical information and textual criticism beyond the reach of all the diligence or acumen of an editor in India, who might sigh in vain for the exceptional facilities of the Librarian of Emmanuel Meer. Mr. Shuckburgh has followed the text of 1595, the first edition, which was not only more carefully printed than the second—that of 1598—but from a better manuscript; yet all subsequent editions have followed the second edition, either repeating its blunders, or endeavouring to correct them by conjecture instead of referring to the first edition. The editor of what henceforward may be known as the Cambridge Edition tells us that he has collated seven editions. These are (1) the first edition of 1595, printed by H. Olney, and reprinted by Mr. Arber in 1868; (2) the folio edition by W. Ponsonbie, which contains the third edition of the *Arcadia*; and the second of the *Apologie*, then and thereafter called the *Defense*; (3) the fifth edition printed in 1623, for M. Lownes; (4) the edition of 1724; (5) A Glasgow edition of 1752; (6) Wharton's edition, 1787; and (7) the '*Defense of Poetry*,' printed by W. Bulmer and Co., 1810, and edited for private circulation by Low Thurlow. Flugel's edition of 1889 the editor did not know of in time to make use of. Further our indefatigable editor collated Mr. Arber's reprint of the edition of 1595 with the rare manuscript in the British Museum, and has noted several instances (which he gives in the Preface) "in which Mr. Arber's printer played him false." The Notes are in every respect excellent; and that no difficulty is passed over will be sufficiently shown by the fact that what proved such a crux to several Madras educationists, and is without a note in all other editions, is here cleared up; it is our old friend *Bubonax*. Mr. Shuckburgh's note is:—"Sidney is referring to the tale of *Hipponax* (an Iambic poet of Ephesus, about B. C. 500) of whom one story was that he satirized the statuary Bupalus so bitterly that he hanged himself. By some confusion of mind or of the printer he has combined the two names *Hipponax* and *Bupalus* into '*Bubonax*.'" Professors having classes reading the *Apologie* should lose no time in securing a Mr. Shuckburgh's edition.

We are unable to speak in the same terms of praise of Mr. Verity's edition of Milton's *Arcades and Comus*. There are extremes in all things, and while some annotators supply too meagre fare, others consider that the student should be saved the trouble of going to a dictionary or any book of reference or of even having to think out the meaning of a passage.

There will always be found students and Professors who will welcome a book of that nature, especially private students who have neither the necessary books, nor a tutor to guide them; but Mr. Verity has so overdone his annotating that a student could not be independent of the Professor, but would require to be told what to omit and what to read in preparing for an examination. The chief object of Notes should be to elucidate the text, and to supply all needful information on the etymology, &c., of words that occur in it, but when a whole page is given to *traveller*, another to *allay*, and similar words, which present no peculiar difficulty as used in *Comus*, and when with 50 pages of poetry the hard-worked student has to wade through over 200 pages of closely printed notes and introductory matter,—fond as the native F. A. may be of "full notes,"—he will, we think, say with us "Of a verity there is too much."

ESSAYS ON EDUCATIONAL REFORMERS, by ROBERT HERBERT QUICK, M.A., Longmans, Green and Co., London. 1890.

The title page announces that this book, first published in 1868, is now greatly enlarged and in part re-written. It is, in fact, a new book with an old name. In every respect the new edition is a vast improvement on the old. Mr. Quick, who hates epitomes, has enlarged his book by the addition of some 200 pages. The valuable notes and appendix are quite up to date. A new feature is the large-typed index, which, in addition to the title of the chapter, stands at the head of every page and well defines the subject-matter following. On a first acquaintance, this double index at the head of every page offended our sense of the fitness of things; but a little familiarity with the innovation more than reconciled us to what is obviously an advantage in referring to the book for any particular subject. There is a copious and thoroughly reliable Index as well as an excellent Table of Contents. It is to be regretted that such a book should have left the publishers' hands with such a flimsy binding. Those who love the book, and we hope there are many such, will have no alternative but to suitably rebind it.

On the subject of education we do not remember ever having read a more delightful book than the one under review. In a series of charming Essays Mr. Quick has made to pass before us in succession all the great men who have influenced education since the Renaissance. The two opening chapters on the effects and tendencies of the Renaissance are quite new to the book and form a fitting introduction to the following chapters. The subject of the Renaissance in its bearing on literature and education is a most difficult one, but Mr. Quick has treated it so

pleasantly and yet so thoroughly in these two chapters that the reader is able to trace the effects of the Renaissance more surely and easily than if he waded through many of the standard works on the subject. Of these effects three seem to us worth accentuating, because they have had such a baneful and direct influence on education down to the present day. The first is that which exalted the learner above the doer. The ancients had always valued the excellence that comes of thinking and doing far above the excellence which depends on a knowledge of what others have thought and done. It was the Renaissance which set up the learned man as the ideal man. The second important effect was the undue importance attached to the *language* of the ancient classics. "We see," says Mr. Quick, "that it would be absurd to make an ordinary boy of 12 or 14 study Burke or Pope. And if we do not make him read Burke, whose language he understands, why do we make him read Cicero, whose language he does not understand? The Renaissance gives us the explanation of this singular anomaly. The scholars of that age were so delighted with the 'composite harmony' of the ancient classics that the study of those classics seemed to them the one thing worth living for. . . . though young people could not understand the ancient writings as literature, they might at least study them as language, and thus be ready to enjoy them as literature in after-life. Thus the subject of instruction in the schoolroom came to be, not the Classics, but the classical languages. *The Classics were used as school books, but the only meaning thought of was the meaning of the detached word or at best of the detached sentence.*" In the last sentence substitute 'English' for 'Classics,' and the words are then entirely applicable to the way in which English is often taught here in India. This ideal led the Schoolmasters to attach little importance to the education of *children*. This is the third baneful effect of the Renaissance which we wish to accentuate. "Directly, the pupils were old enough for Latin Grammar the Schoolmasters were quite at home; but till then the children's time seemed to them of small value, and they neither knew nor cared to know how to employ it." "It is by slow degrees that we are breaking away from the bad tradition then established, are getting to understand children, and with such leaders as Rousseau, Pestalozzi, and Froebel, are investigating the best education for them."

We prefer to let Mr. Quick still speak for himself. "Rousseau was the first who escaped completely from the notion of the Renaissance, that man was mainly a *learning and remembering* animal. But if he is not this, what is he? We must ascertain, said Rousseau, not *a priori*, but by observation. We need a new art, the art of observing children. Now at length there was hope for the science of education. . . . The science of education cannot be said to have done much for us at present,

but it will do more in the future, and *might do more now if no one were allowed to teach before he or she had been trained in the best theory and practice we have.*"

Of the lives of the many educational Reformers which Mr. Quick so delightfully portrays, that of Pestalozzi afforded us the most distinct pleasure. We remember seeing in the house of a distinguished living educationist an original engraving of that most extraordinary man. We wondered how such a man could ever have obtained the boundless influence over young children that he enjoyed. Mr. Quick's narrative dispels any lingering wonderment we may still have had. That narrative shows how thoroughly Pestalozzi understood the characters of his pupils, how for their sakes he became as one of them, and how he had his great reward in the way in which the little ones reciprocated his good offices; and how at the last after many vicissitudes he died with the knowledge that his principles were in a good way to revolutionising education throughout Europe. When at Paris, Pestalozzi had asked for an interview with Napoleon, which was refused on the ground that the First Consul could not be bothered about questions of A. B. C. Behold the irony of Fate! Germany, in the hour of its deepest debasement, when it lay at the feet of him who spurned the educational reformer, made the noble resolve to resuscitate itself through the inspiring and humanizing means of education based on the principles of Pestalozzi. A band of young enthusiasts headed by Froebel began the work, and at last the miracle was achieved. Twenty years ago, at Sedan, the nation whose First Consul had slighted Pestalozzi, was humbled in the dust by the nation which had accepted the great Educationist as its saviour!

The closing chapters on 'Thoughts and Suggestions' and 'The Schoolmaster's Moral Influence' will well repay perusal. The course of teaching which Mr. Quick very ably puts forward as the ideal training for a young boy is one that highly commends itself to us. There is nothing extravagant in what he says and nothing more apparently practicable than his suggestions, and yet how far are we off from their realisation!

With the space at our disposal we can do but scant justice to Mr. Quick's work. It is a book which every teacher should take a pride in possessing, and in which a reading public would find instruction in the pleasantest form. It is not too much to say that if its principles were thoroughly mastered and applied by teachers generally in India, it would effect a revolution here as great as that which re-created Germany. The Director of Public Instruction could not do better than order that several copies should take a permanent place in the library of every Normal School and College throughout the Presidency.

A melancholy interest attaches to this Review of Mr. Quick's work; for it was while we were writing it that the lamentable news of the death of its talented author reached us. It must have been some comfort to Mr. Quick before he died to have reflected that the book which took him two years to re-write had found a more appreciative public in England than its predecessor had had. We claim now to share the honours with America, which by taking kindly to the neglected offspring and acting as its foster-mother saved one of the ablest English books on education, and induced its author to give it us again in the improved form in which we now possess it.

ACKNOWLEDGMENTS.

We have to acknowledge with thanks the receipt of the following Books and Magazines:—

BOOKS.

- WEBSTER'S International Dictionary, authorized edition. London: George Bell and Sons, 2,118 pages; 3,500 illustrations. Price in cloth, 31s. 6d. (can be had in twelve monthly parts, 2s. 6d. each).
- TENNYSON'S the Coming of Arthur and the Passing of Arthur, with Introduction and Notes, by F. J. Rowe, M.A. London: Macmillan and Co., Price 2s.
- SHAKESPEARE'S Hamlet, with Introduction and Notes, by K. Deighton, M.A. Macmillan and Co., Price 2s. 6d.
- SHAKESPEARE'S Taming of the Shrew, edited by H. Howard Crawley. London: Longmans, Green and Co.
- AN ENGLISH-TELUGU DICTIONARY, by P. Sankara Narayana, M.A. Madras: K. R. Press, 1891.
- HAZLITT'S Lectures on the English Poets with Notes, by George Maddox, B.A. Madras: Srinivasa, Varadachari and Co.
- MACAULAY'S Addison, with Introduction and Notes, by A. E. Duchesne, B.A. Madras: Tawker, Sadananda and Co., 1891.
- LESSONS IN DOMESTIC ECONOMY, &c., by (Miss) E. A. Keely, Second Edition, revised and improved. Madras: Higginbotham and Co.
- ESSAYS by the late S. V. Thomas, M.A., with Introduction, by S. Sathianadhan, M.A., LL.B., (Cantab). Madras: Addison and Co., Price 12 Annas.
- Hand-book of Commercial Correspondence, being a collection of letters of Business, &c., Parts I & II, by P. S. Krishnaswamy Aiyer. Madras: V. N. Jubilee Press, Price 12 annas each part.

MAGAZINES.

All the usual Magazines have been received.

EXTRACTS FROM THE REPORT ON PUBLIC INSTRUCTION FOR 1889-90.

We give below as usual a few extracts which will prove of general interest from the Report on Public Instruction for 1889-90. In the accompanying statement the causes that have contributed to

The Improvement in the quality of Instruction

are summed up.

The quality of instruction has improved in a degree even greater, as is clear from a glance at the statistics appended to the report showing the number of pupils in the various stages of instruction. Many causes have co-operated to bring about these results. In addition to the continued prosperity of the province, there is to be noted the desire for Western knowledge and culture which year by year grows in breadth and depth. As a consequence of both these, there has been a growing interest evinced by Local Boards, Municipal Councils, and private associations in the spread of elementary instruction, and a larger amount of sustained and intelligent effort put forth by them and by individual members of the community. As for the great missionary societies, there has been no relaxation of endeavour on their part. On the contrary, their educational policy, though occasionally called in question, seems to rest on a firmer foundation now than it did ten years ago. Their labors are more widespread than ever, and every branch of education—primary, secondary, university, and technical—is taken up by them with zeal and success. The increase in the number and the improvement in the organization of inspecting officers have doubtless contributed in no small measure to the steady and rapid advance of the past ten years.

The following extract refers to

The paucity of M.A. Candidates.

In my last report I alluded to the paucity of candidates proceeding to the M.A. degree examination, and referred also to the alteration in the Government scholarship rules with the view of encouraging a larger number of candidates to continue their studies beyond the B.A. course. I am glad to say that these scholarships are being taken up readily by students. It is extremely desirable that men who have just obtained the lower degree in Arts should be kept to a life of study until they obtain employment or enter on a profession, even if they do not eventually take the higher degree. It is also a matter of the first importance that as many graduates as possible who intend to adopt the Profession of Teaching should obtain their M.A. degree before they actually begin work, for then they begin their life's work with a high standard of knowledge in one subject at least, and moreover have not their attention diverted from their proper duties by studying for the degree.

There are now 4 students in the Presidency College who are pursuing their studies for the M.A. degree under the direct supervision of the Professors. The scholarships are only awarded to those who take up Mathematics and the Science branches, as these are the branches in which students need special help; but I have recently extended the privilege to English and the other branches with special reference to the teaching profession. I hope, however, that it will be possible in time to organise the Presidency College so as to afford systematic instruction by means of lectures for the M.A. course in all the branches. The colleges in Bengal and Bombay work up to the M.A. standard. This accounts for the larger proportion of Bachelors of Arts continuing their studies up to the M.A. standard in the sister presidencies.

Is the Upper Secondary Examination popular?

The fact that the Matriculation examination does not cease to be a test for the Public service until the close of the present year, 1890; the fact that the pupil world and its advisers have not yet made up their minds whether the F.A. or Upper Secondary branch is the cheaper and easier way to the pastures of the Government service; the fact that the time of holding the Upper Secondary examination does not correspond with that of the Matriculation examination; the consideration that the Upper Secondary course demands better and consequently more expensive teaching; and lastly the disinclination of Masters to leave the well-worn track of the Matriculation examination—are no doubt the chief causes of Managers not instituting such classes. The mistaken notion that schools taking up the course should also teach the special subjects and the difficulty of securing suitable teachers for teaching such subjects are also obstacles in the way of the new departure. As yet only four institutions—American Evangelical Lutheran Mission college, Guntūr; London Mission institution, Madras; the Basel German Mission Parsi High School, Tellicherry; and St. Joseph's College, Cuddalore—have been recognized as "Special" schools for the Upper Secondary examination; but before this report is submitted to Government, I have no doubt that the number of such special classes will show increase. In the majority of cases it will be found difficult to work the High schools both for the Upper Secondary examination and the Matriculation, and it is, therefore, I think, desirable that the Managers should come to a definite understanding as to the work to be taken up by their respective schools. In small towns, especially, where there are only two or three schools, such a division of labour is most desirable, but the jealousy of rival Managers will probably prevent the growth of a system of division of labour, which is manifestly for the public good. At the present stage it is difficult to foresee the effects of the Upper Secondary examination on the Matriculation examination of the University, but of this one thing I am certain that so long as the stimulus to students to enter on and complete the University course remains as at present, there will not be any appreciable falling off in the number of candidates pursuing the higher University course, although there will probably be a considerable falling off in the number of candidates appearing for the Matriculation examination.

The deterioration of Secondary education.

Much has been said regarding the deterioration of Secondary education of late years. The blame has by some been laid on the Middle School examination. I have already given a decided opinion that the chief cause of the deterioration has been the Matriculation examination. The evil of poor tests may be minimized if the actual mode of examining is good, but as regards this examination I cannot but think that the methods of testing knowledge did nothing to remedy the defects of the scheme. This certainly has not been the case with the Middle School examination. The presentation of boys at an early age, for a great public written test, success or failure in which is of great and material moment to a lad, may affect injuriously the soundness of training; but I believe that the tests of that examination, especially in language, are sound in principle, and that, speaking generally, the methods of applying those tests have been good likewise. I have tested classes in schools in which the pupils preparing for this examination and those that had recently passed it were manifestly superior as regards their knowledge of English idioms and construction to lads in the Matriculation class. Here no doubt the character of the Matriculation examination had had its baneful influence. But after all, examinations, however bad, are of less moment than bad teaching, bad organization, excessive classes, and poor methods. These evils are, as I have pointed out in previous reports, the chief causes. The remedies have yet to be applied and consist mainly of three things, the provision of good teachers through the agency of Normal schools, the increasing of the rewards open to the teaching profession, and the adoption of rules of recognition which will insure sound organization and adequate teaching power and suitable accommodation. These remedies are being gradually applied, and will be more effectually applied as time goes on. As is the master so is the disciple. If we make the teachers good, the pupils will be good likewise.

Employment and prospects of Teachers.

During the year, 648 trained teachers joined their appointments or obtained employment as against 667 in 1888-89. The decrease is merely nominal, being due to the detention of normal pupils at certain schools for examination in teaching power. Cases having recently come to light of trained teachers securing service in other Departments, in violation of the terms of their agreement to serve as teachers for a specified period, stringent instructions have been issued to Inspecting officers to watch the movements of trained men and to take prompt steps to enforce compliance with the terms of their agreement. As salary results schools multiply, and as the average earnings of schoolmasters improve in consequence of more efficient teaching, the career of a schoolmaster will become more attractive. When the village schoolmaster compares his own ill-paid work with the comparatively lucrative appointments in some other Departments, it is not surprising that he is occasionally tempted to forget the terms of his

agreement and to transfer his services to the Department that pays better. At the same time, it is the duty of this Department, while striving to improve the status and emoluments of trained teachers, to guard against any infringement of the conditions under which such teachers accepted normal scholarships provided from public funds.

Slow progress of Female education.

The demand for upper secondary education hardly exists among Hindus and Muhammadans. Until the people themselves show more signs of awakening to a sense of the true interests of their women, it is little that missionary or philanthropic enterprise and Government can do for the general extension of the higher education of women throughout the Presidency is at present out of the question. The most that can be done by Government is to wait and watch for the smallest indications of a desire for this higher education here and there throughout the country, and when it appears, to make the most of it either by opening High schools for native women under the direct control of Government, or by giving the most liberal help and sympathetic encouragement to those who maintain such schools, whether they be private individuals, or missionary societies, or secular associations.

Is the supply of graduates in excess of the demand?

If this be true, the practical inference would be that steps should be taken to restrict the out-put of men holding the Arts diploma. But is it true that the number of graduates in Arts is too great? If the statement be true its truth certainly does not appear on the face of it. Even on the assumption that all the graduates belong to the presidency of Madras, 2,169, the number on the rolls of the University on the 31st March last, can hardly be regarded as a number large out of all proportion for a population of over thirty millions. If the population of the Native States, whose colleges are affiliated to the University be taken into account, the argument would be much stronger. What lends colour to the popular idea about the excessive number of graduates is that they are often to be met with in the humbler walks of life and that they apply for and accept employment for the merest pittance of a salary. This no doubt is true, and is owing to several causes to which I cannot here advert. One aspect of the matter may, however, be touched upon. The University cannot boast of having on its rolls many graduates belonging to the aristocracy of native society, or even to the wealthier classes. People of these classes stand aloof from the higher education, having neither part nor lot in it. While our colleges are not, in my opinion, open to the charge of educating too many, they are, I think, in many cases guilty of not selecting the right class of young men to fill their benches. I agree with Professor Huxley in holding that a national system of education should provide a ladder from the gutter of the University, so that the poorest child in the country should have the means and the opportunity of receiving the best education he is capable of benefiting by. But I am afraid

that in selecting students to hold free scholarships or money scholarships, poverty more often than capacity is the qualification taken into consideration. In this way our colleges are too much frequented by young men who would never have been there but for their poverty, who have not the intellectual ability to benefit by a course of liberal education, who can never become the leaders of native society, but who, had they not been helped by free or money scholarships injudiciously awarded, might, in those humble walks of life in which they were born, have played their part in life with more happiness to themselves and greater benefit to the community. The system of free scholarships now in vogue has done an immense deal of harm in this direction. I am not, therefore, in favour of any measure which would have the effect of diminishing the attendance at colleges for general education, provided the right class of young men can be induced to attend: young men who by birth and social position are destined to be leaders of society; but above all, young men of splendid promise from whatever walk in life,—young men whose ability, but for University culture, would perhaps never grow to maturity, and so would never be turned to the good of the community.

Zenana or Home education.

The importance of Zenana or Home education classes has been dwelt upon in previous reports. It is only too true that much of the money spent on female education is practically thrown away in consequence of the early age at which girls are withdrawn from school. The little learning acquired in the elementary standards becomes less when the girl is by social custom withdrawn from school at about the age of ten, and by the time womanhood is fully entered upon only the merest vestiges of it remain. A means of carrying on the work of the school after the girl has retired into the comparative seclusion of domestic life is, therefore, needed, as much for the conservation of what has been learnt as for the sake of adding to it. The best way of securing both these ends would, of course, be such a change in the social customs of the people as would allow of girls remaining at the ordinary school several years longer. Not only would this be the best means, but native society will, I am fully convinced, discover sooner or later that it is the only way in which education can ever make an impression on the female portion of the community at all proportionate to the mark it has made on the other sex. The sooner this discovery is made and acted on the better. For no one, however sanguine he may be, can maintain that Zenana or Home education classes, or any practicable extension of this agency, can effectually cope with the wide-spread ignorance and lack of culture that prevail. At the best these Home education classes are temporary make-shifts, not permanent parts of the educational machinery which is transforming Hindu and Muhammadan society. I should like to see this aspect of the matter brought constantly and prominently forward on every occasion on which the general interests of female education are being discussed in public. Hindu and Muhammadan parents must be brought to

face the vital issues that are bound up with this question. If Native society, in full view of all the circumstances, deliberately resolves to allow itself to fall behind in the march of progress, there is not another word to be said. But if it desires to take its place among the foremost peoples of the earth—to be a progressive instead of a stagnating or decaying society—it must gird up its loins and resolve at whatever cost to emancipate its women from the thralldom of ignorance. A society composed of educated men and uneducated women can never be a progressive society. Home education classes are good as far as they go, and if parents can afford and are willing to pay for the luxury of educating their girls at home, it is right that they should have an opportunity of doing so. But it is merely to play with a momentous question for the leaders of Native society to assume that, in patronizing these classes, they are doing a great deal to remove one of the greatest blots on their social system. It must be apparent to all of them that no practicable extension of the Home education system can have more than an infinitesimal effect in removing the mass of illiteracy and ignorance which is stifling the very life of society.

I am far from thinking that it would be expedient entirely to withdraw Departmental aid from this educational agency. But the conviction has for some time been growing in my mind that, unless the utmost caution is taken, increased facilities for opening these classes and liberal grants in aid of them may have an effect the very opposite of that intended,—may retard the general spread of female education while advancing it slightly within a very limited sphere. Only those girls who have reached the age when rigid custom ordains that they shall not any longer attend school should be admitted to the home classes. A little judicious pressure brought to bear on parents who are at all desirous to see their daughters educated would here and there have the effect of inducing them to break through the barriers of custom and keep their girls at school some years longer. If parents find that the educational authorities are just as ready to arrange for their girls being educated at home by a semi-private governess as they are to provide for having them taught in a school, they will doubtless choose the former. It is expedient and right that this Department, in administering the expenditure of public funds, should make concessions to the customs of the people; but it is to be expected that the more enlightened members of the community will set the example of a readiness to meet the Department half-way, and to remove little by little the barriers which custom has set up in the path of female education. The education of one's children involves a sacrifice—a sacrifice of money, it may be of customary opinions, of cherished prejudices, of time-honoured sentiments. If parents are really desirous to educate their daughters, they will be prepared to make the necessary sacrifices. If they are indifferent in the matter, I am not very sanguine as to the amount of good that will be done by home education classes.

THE NATURE AND AIMS OF EDUCATION.

A Lecture delivered before the Wilson College Literary and Scientific Society, Bombay, by Mrs. PECUEY PHIPSON, M.D., on 24th March 1890.

STUDENTS.—The subject under discussion this evening is a very trite one and many of you may be disposed to question whether it is an appropriate one for the occasion, whether it is not altogether superfluous to talk about education to those who are engaged in the curriculum of a college, and who at no very remote period will pass out crowned with university degrees as credentials of being educated men. But, gentlemen, allow me to express the opinion that your claim to that epithet will depend not so much upon your college course as upon your condition intellectually when you first entered upon it. For the ordinary student going through the ordinary College course seems to me like a man making an inventory of facts, piling up so much information in the store-rooms of his memory, and whether that process aids in carrying on his real education must depend upon how far that education had gone before he began his inventory. To such and such a Greek word such and such accents, in such a Latin sentence such a particular construction, so many atoms of H, O and C to such a compound, such the principal facts (the facts generally being details of wars) in the history of such a nation, so the student goes on through the four or five years of his undergraduateship, heaping up information and loading his brain with much that oozes out as he leaves the examiner's table and which, at any rate, can only be of service to him in after life so far as he is capable of putting it to use.

Education as you know means the leading or drawing out of the mental faculties so as to develop their utmost possibilities, to enable them to reach their highest development. All knowledge is due to experience, and experience is chiefly gained by contact with the outer world through the senses. It is evident, therefore, that the development of the senses forms a most important part of education. Alongside with this foster the mental faculties of observation and reflection and you are then in the right way to enable the individual to reason accurately upon the impressions conveyed to the mind by the senses. The senses being educated to convey the most delicate impressions and the intellect being trained faithfully to record and accurately to reason upon them true knowledge is gained, a knowledge which is always ready to be turned to account, always at hand for application. The difference between a graduate who began his college course with such an education and another who, uneducated in this sense, has merely stored his memory with facts acquired by reading, is the same in kind, if not in degree, as that between the devotee who chants his prayers in a language unintelligible to himself and the founder of a religious system, between the Tibetan priests with their prayer-wheels and the great Buddha himself.

Education then devotes itself to the training of

- I. The Senses,
- II. The Intellect,
- III. The Moral Intelligence,

in such a way as to make them *sensitive to impressions*.

I. And first as to the training of the Senses, of Sight, Hearing, Smell, Taste, Touch and that which has been variously named the Muscular Sense or Sense of Movement. I hope to show you that these all must be educated if all the mental powers are to be drawn forth, and even in order to enable the individual to reach the highest pitch of physical welfare. A highly organised brain, capable of effective working, must, I need hardly say, be a healthy brain, well-nourished and supplied with pure blood. This is a *sine qua non*. The nervous forebodings which distress an anæmic brain, the delirious hallucinations of a fever-poisoned one prove clearly the truth of the saying *mens sana in corpore sano*. We

shall see that all the senses contribute towards the development of a healthy brain, that none of them can safely be excluded from the educating influence, nay, that those which are regarded as pandering to the lowest appetites of man and which the ascetic disregards on this ground are those which, on that very account, need the most careful training. What are termed Sensual Pleasures and Vices are the indulgences of men of untutored not of overtrained senses.

Let us take first that sense which has been most tabooed of all on this account by ascetics of every religion and by many who extol the pleasures of the Intellect above those of the Senses, oblivious of the fact that the Intellect is dependent upon the Senses for all the information which supplies the material upon which it works. The ascetic mortifies his Sense of Taste, by allowing it to convey only one impression to the brain and that proceeding from the coarsest or most insipid diet he can devise; the student ignores it as much as possible by eating a hasty crust whilst poring over his book, so that the brain is not conscious of any impression at all. But little brain work is ever done by ascetics and the student who neglects his food has to stop his studies very shortly from a breakdown in health.

The Sense of Taste is the friendly mentor of the brain, warning it what food is good and what bad for its nourishment. When anything disagreeable is put into the mouth the nerves of taste immediately convey a message to the brain—"Unpleasant," and the message is conveyed through the Head Receiving Office to the Head Despatch Office, and another message is sent down by the motor nerves to the muscles of the tongue and cheeks—"Put it out." An educated and unvitiated taste is always a faithful mentor, warning against what is harmful, representing what is beneficial as pleasant. This, however, is to a great degree the result of experience and education. Children and uneducated adults may be seen foolishly stuffing themselves with what is most harmful whilst the educated palate taught by properly-heeded experience refuses such things. This is especially noticeable during illness.

Then too the educated palate is distinguished from the uneducated by its ability to differentiate fine shades and delicate qualities in taste. You may wonder at my discoursing in what you may consider the style of an epicure in such a connection, but I assure you that refinement in diet means refinement of brain stuff and therefore refinement of intellect. No good brain work can be done on coarse or insufficient food. The great difference in this sense, as in all the other senses, between the educated and uneducated man, is that the former is quick to observe the impressions conveyed from the outer world by these means of contact, and that he takes pains to multiply such impressions so that he may make comparisons between them, i.e., he is alive to his experiences, he profits by them and he experiments for himself so as to widen his experience. Now if you observe uneducated people or people who are too poor to widen their experience in the matter of taste, you will find that their ordinary food is badly grown, coarsely cooked, and as a rule is either insipid or unpleasant to the palate; and that in order to cover these failings they are in the habit of concealing the unpleasantness or want of taste by some condiment which is so powerful as to render the palate insensible to any delicacies of flavour. It would be possible for instance to swallow the most nauseous preparations as food by covering the taste with chillies or assafoetida. A person who stultifies his palate in this way is never likely to trouble himself about delicate shades and distinctions of flavour, and it is those refinements of flavour which mark the distinction between good and bad quality in food. Take vegetables for instance; an educated taste will at once detect by the flavour whether a vegetable has been grown upon good soil or bad, whether it has been carefully tended or neglected, and that, mind you, implies whether it contains those mineral and nitrogenous components which make it a valuable nutriment or whether it is a merely watery excrescence simulating the true food but containing few ingredients of value. In the

latter case the poverty of nourishment necessitates the ingestion of large quantities to make up for lack of quality, the stomach has to be loaded with a burden which is a fatal bar to mental exertion, and has to be provided with powerful stimulants as aids to digestion in the form of the condiments I have mentioned. But, when the taste is educated, those delicate shades of flavour are appreciated, the more nourishing forms of food are selected and are so combined that the most economical diet, viz., that in which there is least waste and refuse and therefore that which is contained in the smallest possible compass, is fixed upon as a standard diet. Gluttony and coarse food go together, an educated taste and refinement in food lead to refinement in eating. Thus in looking back to manners in food and diet in olden times we find, where bills of fare have been preserved, that people were very coarse feeders compared to what they are now, there was very little variety of food and the cooking was very inferior; but they tried to make up for defects in quality by excess in quantity and were great gluttons. I should be very glad if any words of mine proved an incentive to you to cultivate this sense of taste and consequently to improve the cultivation of food stuffs, for after travelling to some extent in three continents I am bound to confess that the food in India is worse than any I ever experienced. It is impossible to do much head work upon it, and one of the first considerations of educated Indians should be to introduce a better method of vegetable culture. I often think that if our Hindoo friends would ensure us three good nourishing vegetables it would do more than any amount of Cow-protection agitation to induce some of us to sever our connection with that ghastly place at Bandra which till quite lately I always mistook for Pinjrapole.

Now let us turn to what I suppose you would consider the next lowest of the senses, that of Smell. In this case too a strong impression is necessary to convey any sensation to the uneducated man; to him all the more delicate odours are as though they were not. To those accustomed only to heavy and powerful smells the subtle fragrance which is wafted on the pure fresh morning air if the country is unappreciated. I have even come across those whose sense was impervious to the less delicate odours which rise daily in the mist of a Bombay morning from the dust heaps and gutters of its million inhabitants. But just as the Sense of Taste warns a man what is good and what bad in food so the Sense of Smell when trained is a monitor as to what is good and what bad in the air which passes into the blood in respiration; and the man who is insensible to the finer subtleties of smell not only misses many of the pleasurable sensations of life, but he is liable to live under atmospheric conditions which poison his brain and stunt his mental faculties. I notice in the crowded streets of Bombay men pursuing their avocations with the utmost placidity in a smell which compels one to bar that gateway of knowledge, the nose, as effectually as possible. I remember once on such an occasion meeting a Mussalman woman holding her nose as she walked along. I at once conceived a great respect for that woman. Here, I thought, is a superior woman, she has a delicate sense of smell, that means a delicate Sense-centre in the brain, probably the whole brain is educated also. Now consider the magnificent natural advantages as regards health which you enjoy in Bombay. The sun, the great purifier, is with you almost all the year round. Every day there is a beautiful breeze from the sea, bringing life on its wings, it only remains to educate the sense of smell in its citizens to make Bombay the healthiest city in the world, but not till that is done shall we have those abominations cleared away which poison the life-blood of the people and which make only a few minutes' stay in their neighbourhood the source of a headache which incapacitates for mental work for the rest of the day.

I must not detain you longer on this subject, but it is plain that in the same way the other senses minister to the well-being and safety of man, and the value we put upon the gifts of sight and hearing may be gauged by the pity we feel for those deprived of them. In defect of Sight the sense of Touch and the Muscular Sense have to be eyes to the blind

and in their increased acuteness make up for the loss so far as is possible. From early times the efforts of Man have been concentrated on extending the impressions conveyed by the Eye and Ear. Appliances have followed one upon another for widening their sphere in every direction, in bringing the far near and making the small large. Specially of late magnificent results have been attained in this direction and we have not only the telescope and microscope but the telephone and microphone, the tiny diatras of the Ocean's floor are brought within observation alike with the distant stars, and a whisper is carried around the world.

How much of the pleasure of life is due to the impressions conveyed through these two senses we are apt to forget until we are temporarily deprived of either of them. The religious teacher makes use of them in appealing to the emotions by gorgeous pageants and solemn music, the orator stirs to patriotism or treachery by his skilful appeal to the mind through the ear, the soldier rushes fearlessly into the jaws of death stirred by the strains of martial music, the accents of pity, of love or hate stir the passions of the human mind to their lowest depths, whilst a look or sign may evoke or turn away a quarrel. The soberer intellectual delights come to us chiefly through these channels, the wonders of science, the charms of art and of literature are alike brought near by sight and hearing. But how much escapes the uneducated senses! Some seem to go through the world with their eyes shut, whilst nothing seems to escape the notice of others; some are unaware of the commonest sights and sounds going on around them, 'seeing they see not and hearing they hear not,' their senses have never been trained to report nor their mind to record matters of daily occurrence. With the same opportunities as others they gain nothing by experience, their mind is a blank as regards much of their surroundings. Now although individuals vary much in this respect the habit of seeing and hearing can be to a great extent inculcated. This is where science, with its experimental methods, is of such service, not only on its own account but as an educational training of the faculties. For you cannot slur through a mathematical problem or a chemical experiment without utter failure, accuracy and exactitude are here a *sine qua non*. And accuracy and exactitude will lay many ghosts of old falsehoods and errors, and bring to light many hidden facts.

It is not merely then as handmaids of physical health that the senses must be considered; they are the gateways of knowledge without which the storehouse of the brain remains an empty granary, the library of the mind presents nothing but blank books. Open the gateways wide that the storehouse may be filled with the golden grain of ideas reaped from the harvest of experience, that the blank books may be covered with characters written by the pen of observation. But at each gateway there must be a faithful janitor to shut out all but the purest grain, to see that none other than the pen of truth inscribes a thought upon the tablets of the mind. Just as by accustoming ourselves to coarse impressions we blunt our susceptibility to finer sensations in physical things, so in the higher range of intellectual and moral growth the coarse may overwhelm the fine, the ignoble crowd out the noble. Take great heed therefore as to what your senses come in contact with. Now in the time of youth you store up ideas which form the material upon which the mature intellect reasons and reflects. If you put yourselves in the way of impure sights and sounds, of what is frivolous or obscene in books or music or conversation, you will find in later life that the impressions left by these will be like the temptations ascribed by the old ascetics to the Evil One; they will confront you at every turn of thought, they will debase your most golden ideas, they will be ever starting up to mar your enjoyment of what is lofty and noble and good.

II. In training the Intellect the same object is to be kept in view, *viz.*, to render it sensitive to impressions, that is, to enable it to observe accurately. This involves comparing and classifying the sensations conveyed to it by the senses and reasoning with regard to them. It is on this ground that the kindergarten system is so valuable in that the

122

child learns from its own experience and makes its own observations. It is a system which forms a good guide to the teacher also, shewing him the natural bent or direction of the child's mind and thus enabling him throughout its whole training to present subjects in their natural sequence, that is, according to the natural development of that particular child's mind. In school and college this is difficult because it is next to impossible to give individual teaching, but it may be begun at a very early stage, so that by the time the child goes to school he has learnt to think for himself and will assimilate information and arrange it in his mind after his own method and in the way best suited to his own intellect. For example, in working out the same scientific problem you will find two students will arrive at the same correct conclusion by perfectly different methods according to their different cast of mind, or two investigators will make the same discovery when working along totally different lines. This is because although ideas are the result of the experience which comes to us through the senses by contact with the external world, there is always something subjective, something of the individual imparted to them. Just as the reflection of an object in the water differs from the object itself in that the water imparts to its own fluidity and mobility, reproducing only the salient points and softening down angles and outlines, so those reflections in the mental mirror which we call ideas have something of the mind's own imparted to them, detracting from or adding to their beauty according to the character of the individual. You know how some people impart a freshness and vigour to any subject they handle; as we say, they make it their own, that is they leave the imprint of their mind upon it; some whom we call poets seem to get to the very spirit or essence of things and see a beauty in them which to the commonplace man or the dullard is imperceptible.

"A primrose by the water's brim

A yellow primrose was to him and it was nothing more."

So, too, with the emotions; we know what a different idea is presented by the same individual to different minds, creating in some love, in others hate, and in others again indifference; the idea of a beloved person bears strongly the impulse of the loving mind, and the more so as the visual impression and sensible contact are removed; sometimes the person is foolishly idealized, but as often the mind, as the mental faculties develop, becomes open to an idea which before it was incapable of receiving, and so gets nearer and nearer to the truth. As Shakespeare has it:—

"The idea of her life shall sweetly creep

Into his study of imagination;

And every lovely organ of her life

Shall come apparell'd in more precious habit,

More moving delicate, and full of life,

Into the eye and prospect of his soul,

Than when she liv'd indeed."

It is so frequently with great teachers, "the idea of their lives" becomes more and more like the reality as time goes on; not only because external impressions cease to draw the attention to minor details and temporary human passions have no longer play, but because as the human mind develops people become more capable of appreciating qualities which they themselves possess to some extent, and the idea is no longer, as some writer has said, "above the tiptoe of their little minds." For the same reason religious ideas and conceptions of the Deity become ennobled as man reaches a higher intellectual and moral level, and his ideal of the Good and Right and True becomes higher because he himself has the Moral Sense and Virtues more highly developed. Walt Whitman is right in saying that the fountain of all the truth to which you are possibly eligible is in *yourself* and your inherent relations. The cast of mind of the individual fashions to some extent the impressions or ideas he receives on every subject and the views he holds upon every

question, for instance, as is written in the Christian Scriptures: "to the pure all things are pure, but to them that are defiled * * nothing is pure; but both their mind and conscience are defiled."

In the education of the Intellect the child should be trained not to be the passive receptacle of other people's ideas and impressions, but to bring to bear in his experience and observation of all around him this something of his own mind which gives to all the ideas he forms an original impress. In this way only can genius have full scope, and originality of intellect be developed. This is why I said that the educational value of college life depends so much upon previous training, for unless a boy has been taught to think for himself in an independent manner all school and college education will turn out nothing but an unhealthy cramming of indigestible facts which will be perfectly useless to himself and the community in after life.

(To be continued.)

• HOW CAN THE TEACHER GROW IN EFFICIENCY?

Growth is essential to all efficiency. The teacher should always be ready to grasp opportunities for growth in knowledge. He should seek for culture, and should turn for his recreation to some one line of study. No teacher can afford to be without the inspiration which comes from intimate acquaintanceship with the best of fiction and history, the great works of literature. The teacher should have a definite idea of what each lesson is to teach and how it should aid in securing the great end of education. He must be in sympathy with his pupils, interest himself in the base ball successes of his school. Students will quickly reciprocate such interest. Let the teacher lose no opportunity of associating with his pupils out of school. There he will form a far more correct idea of a pupil than he can possibly get within the school walls. He may learn to have much more respect for the boy who persistently fails in algebra than for the one who always recites. Every teacher should aim to be continually improving his methods of imparting instruction. Enthusiasm is the most essential qualification for successful teaching. One is enthusiastic along the lines where his energies are chiefly directed. Very few successful teachers can divide their energies and interest with any other profession. The average teacher does not do enough work out of school. This is especially true of the older teachers. When one has been long in the profession, he falls into a sort of routine which is fatal to growth. By the teacher's manners it should be evident that he seeks to treat all fairly, to be impartial in every school duty. Favoritism is the bane of many a teacher. The best teaching is not of the kind that evolves a few phenomenal scholars. He who succeeds in encouraging the diffident, interesting the listless and inspiring the stupid, may well be entitled to high rank in the profession.—*Journal of Education*, (Boston).

THE LIBRARY IN FRANCE.

The inspector for the department of Lozère France, has sent out to all the subordinate inspectors of his department a circular on the formation of libraries for schools and teachers. He says: "I would choose books which induce thought rather than those which furnish knowledge. First of all histories; not those which are written in many volumes,—very good for consultation, but which one cannot read from lack of time,—but those by men who have concentrated their study and thought on a single event or man; essayists, critics, or, still better, the authors of memoirs. In these last, one sees by whom and how history is made. Thus an epitome becomes animated for the pupils, and they find in it something besides names and dates.

"I would give a very large space to the essayists of all times and all nations. The writings of the moralists, or essayists, invite one to write on the margins. They should be especially stimulating to teachers. I certainly would not banish the novelists, who are moralists in a way. But the selections of these should be very carefully made. Too often, unpracticed readers of a romance notice only that of least importance, the plot.

"Finally, I cannot conceive of a school library without the poets. In spite of everything, poetry has not ceased to be what it was in the beginning, the most delicate and most noble mode of expression. Nothing is better fitted to elevate and educate a man.

"If I was charged with the purchase of ten books for a school library which already had a foundation of pedagogical works, I should select one book on the special line of work done in the school, three historians, three essayists, one novelist and two poets."

THE STUDY OF THE "HISTORY OF EDUCATIONAL THOUGHT."

[From *The New York School Journal*.]

These questions naturally arise in the mind of the student in any course in pedagogy: How will this work affect my teaching? In what way will my pupils derive benefit from it? How will my usefulness as a citizen and a member of society be increased? How will it increase the value of my services? From the study of the education of the ancient Greeks, he will appreciate the value of the home and of home training, the influence of the family upon society; and he will aim to

purify the homes of the future by a careful training of the fathers and mothers, especially of the mothers, of those future homes. From the old Greek education he is taught the value of physical culture, the desirability of a robust and symmetrical bodily development, and its influence upon the mind. He learns also the value of æsthetic culture, and how a taste for "the good, the true, and the beautiful" may be inculcated. The work of the Sophists warns him to avoid being too much influenced by the popular demand for "utility": to avoid the sin of "cramming" the minds of his pupils instead of steadily and systematically developing their whole being. Socrates impresses him with the value of a philosophy of education. He inspires him with a desire to be a true teacher, to be willing to make any sacrifice that his pupils may be brought to a knowledge of the truth.

From Aristotle the student learns that in the treatment of his pupils he must allow for inherited tendencies. He must recognise the fact that every human soul possesses an inner consciousness, an inborn sense of right and wrong. He is taught by him, too, the value of "education by doing"; that goodness becomes perfected by practice; that physical culture is an important factor in educational development; and that the musical taste, or the sense of harmony, should be carefully cultivated. Plato impresses him to avoid the error of attempting to cast all youthful minds in the same mould. From him he learns to respect and preserve the pupil's individuality, and as far as possible to train him to make the most of his natural abilities. The history of the Greek nation as a whole, the lives and teachings of its great statesmen, writers, orators, and philosophers, especially a careful study of Grecian philosophy, enriches the mind, strengthens the character of a teacher, and makes him a nobler and better man, as well as a more efficient and conscientious instructor.

What has "Imperial Rome" to contribute to the student of "educational thought"? We answer, Roman education was practical. "Utility" was the all-important object. Conquest and power was the national ambition and object. While the Greek ideal of beauty had its influence upon individuals, and the influence of the Grecian philosophy was somewhat impressed upon the Roman mind, yet the Roman thought as a nation was practical instead of ethical. The estimation in which woman was held, the neglect of the education of girls, the oppression and ignorance of Roman slaves, and the absence of a religion of moral purity and a knowledge of the God of revelation, were the principal causes of the disintegration of the Roman Empire. The student has these facts then to learn from her history. The useful in education must not be ignored—but "the useful must be made beautiful,"—that the existence of just laws protecting equally all citizens is necessary for the

stability of a government, and that morals and religion cannot be ignored in a perfect system of education.

The influence of Christianity and of the Christian fathers and teachers next presents itself for the student's consideration. From a careful and thoughtful contemplation of historic facts, the student of educational thought must conclude that the Fathers of the Christian Church failed to fully comprehend the Christian gospel. To them it was a means of salvation in the life to come only. The civilization and the culture already attained had no connexion with its mission, and no part in its work. This world was a moral wreck, from which believers in Christ only would be saved. In their system of education, physical culture was entirely neglected, mental was very limited, and spiritual development only was sought. They failed, too, to recognise woman's part in the elevation of the race, to comprehend that our race can only be surely and permanently elevated by a systematic development of all the powers of all its individual constituents.

From the life and works of Ascham and Montaigne, Milton and Locke, Comenius, Rousseau, and Pestalozzi; Froebel, Fenelon, Jacotot, and Spencer; Horace Mann, Barnard, Page, and a great number of cultured and trained teachers of the present time, he not only learns much of the science and art of teaching, but receives courage and inspiration from their example of unselfish devotion and untiring energy. A study of the lives and characters of Pestalozzi, Page, Mann, and Barnard, especially, must condemn the careless, selfish teacher, and inspire and cheer the earnest seeker for a better way. This work, then, carefully and conscientiously performed, will have an immediate influence upon the pupils of the student. His conscience will not allow him to continue to do superficial work. His pupils will partake of his spirit, for a student-teacher comes to his pupils with a fresh mind and a teaching spirit. If he becomes a better teacher he must become a better man. His character will widen, strengthen, and become purer. He will therefore become a better citizen and a more useful member of society. It is yet too early in the world's history to expect entire appreciation in any work of reform, or to think of receiving a pecuniary reward commensurate with the effort expended; nevertheless, a teacher who is determined to succeed, who makes his services desirable, and who becomes a "master-builder" in erecting the "temple of knowledge," need have no fears concerning a position, or pay for his work. Teachers of skill and experience are always in demand; and as the world grows wiser and better, and the importance of the work is more generally recognised, there will be an increasing demand.—By Principal EGBERT H. HULSE.

UNIVERSITY OF MADRAS.

EXAMINERS AND ASSISTANT EXAMINERS, 1891-92.

ENGLISH.

1. Rev. G. M. Rae, M.A., (Chairman), Secretary, Free Church of Scotland Mission, Madras.
2. J. B. Bilderbeck, Esq., M.A., Presidency College, Madras.
3. Rev. O. W. A. Clarke, M.A., Noble College, Masulipatam.
4. D. M. Crnickshank, Esq., M.A., Ernakulam College, Cochin.
5. Rev. T. H. Dodson, M.A., S. P. G. College, Trichinopoly.
6. Rev. W. H. Findlay, M.A., Wesleyan Mission College, Negapatam.
7. M. R. Ry. J. M. Hensman Avergal, B.A., Rajahmundry College.
8. Col. W. Hughes-Hallett, Dy. Judge Advocate-General, Ootacamund.
9. M. F. LaBouchardiere, Esq., M.A., Maharajah's College, Trevandrum.
10. Rev. E. M. Macphail, M.A., Madras Christian College.
11. H. Malim, Esq., B.A., Caldwell College, Tuticorin.
12. James Moss, Esq., B.A., Presidency College, Madras.
13. C. A. Patterson, Esq., M.A., LL.B., Church of Scotland Mission College, Madras.
14. Rev. G. Pittendrigh, M.A., Madras Christian College.
15. M. T. Quinn, Esq., M.A., Pachaiyappa's College.
16. M. R. Ry. S. Seshayya Avergal, B.A., Kumbakonam College.
17. J. G. Tait, Esq., M.A., Central College, Bangalore.

ASSISTANT EXAMINERS.

1. Rao Bahadur S. Appu Sastriyar, B.A., Native High School, Kumbakonam.
2. J. Arbuthnott, Esq., B.A., High School, Chittaldurg.
3. W. L. Bower, Esq., B.A., Government Madras-i-azam, Triplicane, Madras.
4. M. R. Ry. P. M. Chakko, B.A., C. M. S. College, Kottayam.
5. M. Crosse, Esq., M.A., Hindu College, Tionevelly.
6. Mr. P. P. D'Rozario, B.A., Brennen College, Tellicherry.
7. A. E. Duchesne, Esq., B.A., Pachaiyappa's College.
8. M. R. Ry. L. A. Ganapati Aiyar, B.A., S. P. G. College, Trichinopoly.
9. C. Gopala Row, B.A., Pachaiyappa's College.
10. W. E. Hoare, Esq., B.A., Wesleyan Mission College, Royapettah, Madras.
11. M. Hunter, Esq., B.A., Coimbatore College.
12. Mr. Jacob John, B.A., Madras Christian College.
13. Mr. K. Koshi, B.A., Ernakulam College, Cochin.
14. F. J. Moss, Esq., B.A., High School, Mercara, Coorg.
15. M. R. Ry. S. Ramadoss Aiyar Avergal, B.A., Kumbakonam College.
16. Rev. J. Santiago, B.A., St. Joseph's College, Trichinopoly.
17. Rev. A. Walsh, M.A., St. Mary's College, Madras.
18. M. R. Ry. L. C. Williams Pillai Avergal, B.A., Asst. Insp. of Schools, Tanjore.

SANSKRIT.

1. M. R. Ry. M. Seshagiri Sastriyar, Avgl., M.A., (Chairman), Presidency College, Madras.

2. E. Hultzsob, Esq., PH. D., Government Epigraphist, Bangalore.
3. M. R. Ry. M. Rungachariyar Avergal, M.A., Rajahmundry College.
4. T. Sankara Row, B.A., Kumbakonam College.
5. Syed Ali Bilgrami, Esq., B.A., LL.B., Hyderabad, (Deccan).

GREEK AND LATIN.

1. Rev. J. W. Foley, M. A., (Chairman), Bishop Corrie's Grammar School, Madras.
2. H. P. Hodson, Esq., M.A., Nizam College, Hyderabad, (Deccan).
3. Rev. A. Jean, B.A. S.J., D.D., St. Joseph's College, Trichinopoly.

ARABIC, PERSIAN AND URDU.

1. Rev. E. Sell, B.D., (Chairman), Egmore, Madras.
2. Shamsululm Iftiz Mahomed Lutfulla Sahib, Presidency College, Madras.
3. Syed Hussain Bilgrami, Esq., B.A., LL.B., Hyderabad, (Deccan).

FRENCH.

1. Rev. E. de Noircourt, B.A., (Chairman) St. Joseph's College, Trichinopoly.
2. Rev. J. Bertho, B.A., St. Joseph's College, Cuddalore.

TAMIL.

1. M. R. Ry. J. M. Velu Pillay Avergal, (Chairman), Teachers' College, Saidapet, Madras.
2. Rev. S. Gnanamuthu, M.A., S. P. G. College, Trichinopoly.
3. Rao Bahadur V. Krishnama Chariyar, Registrar of Books, Madras.
4. M. R. Ry. C. W. Tamotharam Pillay Avergal, B.A., B.L., Retired Judge of Pudukotah & Pursawalkum, Madras.
5. P. Vijayaranga Mudaliyar Avergal, Retired Deputy Inspector of Schools, Acharappen Street, Madras.

ASSISTANT EXAMINERS.

1. M. R. Ry. T. Balasundaram Mudaliyar, Munshi to Tamil Translator to Govt., Madras.
2. C. Bhashyam Aiyangar, B.A., L. F. High School, Chittoor, (N. Arcot District).
3. J. Daniel Pillay Avergal, B.A., St. Peter's College, Tanjore.
4. S. Gopalaswami Aiyangar Avergal, B.A., B.L., High Court Vakil, Mysore, Madras.
5. Rev. R. Paranjothi, B.A., Caldwell College, Tuticorin.
6. M. R. Ry. S. Strechnivassa Aiyar, Pachaiyappa's High School, Conjeeveram.
7. N. Subharaya Aiyar, B.A., Town High School, Kumbakonam.
8. N. Venkata Row, B.A., Church of Scotland Mission College, Madras.

TELUGU.

1. M. R. Ry. S. Rungiah Chetty Garu, B.A., (Chairman), Madras Christian College.
2. Rev. D. Anantam, B.A., Church Mission, Bezvada.
3. M. R. Ry. V. Vasudeva Sastri, B.A., Rajahmundry College.
4. C. Venkataramanjam Nayattu, B.A., Venkatagiri Rajah's High School, Nellore.

ASSISTANT EXAMINERS.

1. M. R. Ry. B. Satagopa Charlu, M.A., Chudderghaut, Haidarabad, (Deccan).
2. G. M. Kundaran, B.A., Municipal High School, Chicacole.

4. Rev. J. Fröhnmeyer, Tellicherry.
5. A. A. Hall, Esq., M.A., Teachers' College, Saidapet, Madras.
6. E. Hultsch, Esq., PH. D., (for Epigraphy), Bangalore.
7. W. S. Mayer, Esq., B.A., C. S., Secretary, Board of Revenue, Madras.
8. Rev. J. Morel, S. J., St. Joseph's College, Trichinopoly.
9. Rev. J. N. Ogilvie, M.A., Chaplain, Church of Scotland, Chetput, Madras.
10. Rao Bahadur S. Ramasawmy Moodelliar, M.A., B.L., High Court Vakil.
11. J. H. Stone, Esq., M.A., Kumbakonum College.
12. M.R.Ry. P. Sundaram Pillay Avgh, M.A., Maharaja's College, Trevandrum.

ASSISTANT EXAMINERS.

1. M.R.Ry. S. Anantanarayana Aiyer, B.A., B.L., Triplicane, Madras.
2. Rev. W. W. Holdsworth, M.A., W. M. High School, Mysore.
3. M.R.Ry. K. S. Kothandarama Aiyer, B.A., B.L., Native College, Berhampore.
4. " M. Ramasawmy Aiyangar, B.A., B.L., Noble College, Masulipatam.
5. " A. Subba Row, B.A., Presidency College, Madras.
6. " G. Subramania Aiyer Avgh, B.A., Editor of the *Hindu*, Triplicane, Madras.
7. " S. Subramonya Sastriyar, B.A., S.P.G. College, Trichinopoly.
8. " V. Venkayya, M.A., Asst. to the Government Epigraphist, Bangalore.
9. " M. Venkataratnam, B.A., Rajahmundry College.
10. " M. G. Zachariah, B.A., B.G.M. High School, Calicut.

LAW.

4. H. G. Wedderburn, Esq., M.A., Barrister-at-Law, (Chairman), High Court, Madras.
2. Kenworthy Brown, Esq., M.A., Barrister-at-Law, High Court, Madras.
3. M.R.Ry. M. O. Parthasarathy Ayingar Avgh, M.A., M.L., High Court, Madras.
4. N. Subramaniam, Esq., B.A., Barrister-at-Law, High Court, Madras.

MEDICINE AND PATHOLOGY, MATERIA MEDICA AND PRACTICAL

PHARMACY AND HYGIENE.

1. Surg.-Major J. H. Ritchie, M.D., (Chairman), Madras Medical College.
2. Surg.-Major W. R. Browne, M.D., Madras Medical College.

SURGERY AND SURGICAL PATHOLOGY, ANATOMY AND OPHTHALMOLOGY.

1. Brigade-Surgeon E. F. Drake Brockman, F. R. C. S., (Chairman), Madras Medical College.
2. Surg.-Major W. Price, M.D., Madras Medical College.

MIDWIFERY, INCLUDING DISEASES OF WOMEN AND CHILDREN.

1. Surg.-Major A. M. Branfoot, M.B., (Chairman), Madras Medical College.
2. Surg.-Major H. J. Hazlett, Madras Medical College.

MEDICAL JURISPRUDENCE.

1. Surg. J. Smith M. B. (Chairman), Madras Medical College.
2. H. S. Staunton, Esq., M. R. and C. M., Asst.-Surgeon, Nellore.

ENGINEERING.

1. Major A. W. Smart, R. E., (Chairman), College of Engineering, Madras.
2. E. W. Stoney, Esq., M.E., M. I. C. E., Engineer, Madras Ry., Pothanool.

MATRICULATION EXAMINATION.

REVISED BY-LAWS.

(To come into operation at the Examination to be held in December 1892.)

133. A Matriculation examination shall be held in Madras once a year, commencing on the 15th day of December, unless that day falls on a Sunday, in which case the examination shall be held on the Monday following. Candidates may also be examined at other places appointed by the Syndicate. The Syndicate shall publish annually, in the month of January, a list of places at which the examination shall be held.

134. Applications for admission to the Matriculation examination, in the form hereinafter prescribed, must reach the Registrar not later than the 1st October preceding. Unless specially exempted from so doing, each candidate must forward with his application a certificate, in the form hereinafter prescribed, signed by the head master of the high school he is attending at the date of applying for admission to the examination, to the effect that he has studied in a recognized high school from the commencement of the year in which he applies, that his conduct has been satisfactory, and that he is qualified to enter upon a University course. The Certificate shall be in the following form:—

I hereby certify that has completed the course of study prescribed for the several classes of a high school and has attended from the commencement of the current year, that his conduct has been satisfactory and that, in my opinion, he is qualified to enter upon a University course.

A candidate failing to pass a Matriculation examination must forward with his application a like certificate before being admitted to any subsequent Matriculation examination.

135. Schools falling under any of the following classes shall be regarded as recognized —

(a) Schools recognized by the Madras Education Department under the Educational rules of January, 1891.

(b) Schools in Native States of Southern India certified by the Government of the States in which they are situated to be organized and conducted in substantial accordance with the Madras Educational rules.

(c) Schools in other Presidencies and Provinces of British India and in Ceylon which satisfy the University that they are organized and conducted so as to ensure efficient training up to the standard of the Matriculation examination.

Application from high schools for admission to class (b) or to class (c) must be made to the Syndicate.

136. The Syndicate shall have the power to exempt from the production of the above certificate candidates who are certified by a Fellow of the University, the Principal of an affiliated college, the Headmaster of a recognized high school, an Inspector of Schools, or an Assistant Inspector of Schools, to be of good character and to have completed their twentieth year before the date fixed for applying for admission to the examination. The Syndicate shall also have the power, in special cases, to grant a similar exemption to candidates who, being under twenty years of age, produce satisfactory evidence of character and of having received suitable instruction. Applications for exemption from the production of the certificate provided in the preceding by-law must be forwarded between the 1st July and the 1st September immediately preceding the examination at which the candidate wishes to appear.

137. No candidate shall be registered unless he have previously paid a fee of twelve rupees. A candidate failing to pass a Matriculation examination may be admitted to subsequent examinations on payment of a like fee of twelve rupees on each occasion.

138. The Matriculation examination shall be conducted by means of printed papers, which shall be given out to candidates on the same days and hours at each place of examination.

139. Candidates for the Matriculation examination shall be examined in the following branches of knowledge:—

i.—ENGLISH LANGUAGE.

* The high school or high schools which the candidate has attended must be entered here.

KANNARESE.

1. M.R.Ry. S. Mangesha Row, Avergal, B.A., (Chairman), Presidency College, Madras.
2. " U. Krishnaiya, B.A., Government College, Mangalore.
3. " H. Netraiah Row, B.A., A. V. High School, Triplicane, Madras.
4. " M. S. Puttanna, B.A., Translator, Chief Court, Bangalore.

MALAYALAM.

1. M.R.Ry. N. Sankunni Warriyar, B.A., (Chairman), Bench Clerk, High Court, Madras.
2. " N. Ramakurup, B.A., Maharaja's College, Trevandrum.
3. " P. R. Sundaram Aiyar Avergal, B.A., B.L., High Court Vakil, Mylapore, Madras.

URIYA.

1. Babu B. C. Chatterji, (Chairman), Sub-Asst. Inspector of Schools, Berhampore, (Ganjam).
2. Babu Sasi Bhusana Patit, B. A., Sub. Asst. Insp. of Schools, Parlakemidi.

MARATHI.

1. M.R.Ry. R. Baghunatha Row, Dewan Bahadur, (Chairman), Mylapore, Madras.
2. " M. Seshagiri Sastriyar Avergal, M.A., Presidency College, Madras.

MATHEMATICS.

1. Rai Bahadur P. Ranganatha Mudaliyar, M.A., (Chairman), Presidency College, Madras.
2. M.Ry. B. Hanumanta Row Avergal, B.A., Kumbakonam College.
3. Rev. H. Kemp, S.J., St. Aloysius's College, Mangalore.
4. Rev. J. T. Lawrence, M.A., Secretary, S. P. C. K., Vepery, Madras.
5. E. P. Metcalfe, Esq., M.A., Rajahmundry College.
6. E. W. Middlemast, Esq., M.A., College of Engineering, Madras.
7. A. C. Mitchell, Esq., D. Sc., Maharaja's College, Trevandrum.
8. M.R.Ry. S. A. Subrahmanya Aiyar, B.A., B.Sc., (for B. C. E. Degree only), Asst. Engineer, Nellore.
9. H. A. Williams, Esq., M.A., Bishop Cotton's College, Bangalore.

ASSISTANT EXAMINERS.

1. Rev. F. Billard, M.A., St. Joseph's College, Trichinopoly.
2. M.R.Ry. P. Gurusawmi Aiyar, B.A., Government College, Calicut.
3. " M. S. Harihara Aiyar, B.A., Manager, Madras S. B. and V. L. Society, Old College, Nungumbaukum.
4. " Joseph Nadar, B.A., B.L., Vepery, Madras.
5. " T. Rajagopalachariyar, M.A., Wesleyan Mission Coll., Rayapettah, Madras.
6. " Rama Aiyar, B.A., Ernakulam College, Cochin.
7. " T. V. Seshadriachariyar, B.A., Acting Personal Assistant to the Director of Public Instruction, Madras.
8. " M. R. Swaminatha Aiyar, B.A., Native High School, Kumbakonam.
9. " T. V. Vydanatha Aiyar, B.A., Town High School, Kumbakonam.
10. " R. Venkataramayya, B.A., High School, Tumkur.
11. " S. Venkoba Chariyar Avergal, B.A., Native College, Madurai.
12. " J. Weir, Esq., M.A., Maharajah's College, Mysore.

PHYSICS.

1. C. Michie Smith, Esq., B.Sc., (Chairman), Madras Christian College.
2. J. Cook, Esq., M.A., Central College, Bangalore.
3. R. L. Jones, Esq., B.A., Presidency College, Madras.
4. G. K. Winter, Esq., M.I.C.E., Telegraph Engineer, Madras Railway, Afkonam.

ASSISTANT EXAMINERS.

1. Mr. D. A. Hobday, B.A., Presidency College, Madras.
2. Rev. R. Pradier, B.Sc., St. Joseph's College, Trichinopoly.
3. M.R.Ry. P. Singaravelu Mudaliyar, B.A., Madras Christian College.

CHEMISTRY.

1. W. H. Wilson, Esq., Ph. D., (Chairman), Presidency College, Madras.
2. W. Keess, Esq., M.A., College of Agriculture, Saidapet, Madras.
3. A. Pedler, Esq., M.A., Presidency College, Calcutta.
4. Surgeon-Major T. H. Pope, M.D., B.Sc., Ag. Chemical Exr. to Government.
5. H. N. Read, Esq., M.A., Maharaja's College, Trivandrum.

ASSISTANT EXAMINERS.

1. A. Chatterton, Esq., B. S. C., College of Engineering, Madras.
2. M. R. Ry. D. Ganapathi Row, B.A., Native High School, Calicut.
3. W. S. Newman, Esq., Asst. to the Chemical Examiner to Government.

BOTANY.

1. M. A. Lawson, Esq., M.A., (Chairman), Suptd. of Cinchona Plantation, Ootacamund.
2. R. Hollingsworth, Esq., Madras Medical College.

PHYSIOLOGY AND ZOOLOGY.

1. E. Thurston, Esq., C. M. Z. S., (Chairman), Government Museum, Madras.
2. A. G. Bourne, Esq., D.Sc., Presidency College, Madras.
3. S. H. Reynolds, Esq., B.A., Madras Christian College.

GENERAL BIOLOGY.

1. A. G. Bourne, Esq., D.Sc., (Chairman), Presidency College, Madras.
2. M. A. Lawson, Esq., M.A., Ootacamund.
3. S. N. Reynolds, Esq., B.A., Madras Christian College.

PSYCHOLOGY, LOGIC AND MORALS.

1. Rev. W. Skinner, M.A., (Chairman), Madras Christian College.
2. Rev. W. H. Campbell, M.A., B.D., London Mission, Cuddapah.
3. D. Duncan, Esq., M.A., D. Sc., Presidency College, Madras.
4. S. Sathianadhan, Esq., M.A., LL. B., Asst. to the Dir. of Pub. Instr., Madras.
5. M.R.Ry. R. V. Streenevasa Aiyar Avgl., B.A., First Asst., Rev. Secretariat, Ootacamund.

HISTORY, POLITICAL ECONOMY, ETC.

1. Rev. A. S. Laidlaw, M.A., B.D., (Chairman), Madras Christian College.
2. C. M. Barrow, Esq., M.A., Victoria College, Palghat.
3. A. J. Cooper-Oakley, Esq., M.A., Pachaiyappa's College.

ii.—SECOND LANGUAGE.

One of the following languages at the option of the candidate :—

Sanskrit.†	Arabic.	Tamil.	Uriya.
Greek.	Persian.	Telugu.	Burmese.
Latin.	Urdu.	Kanarese.	French.
Hebrew.	Marathi.	Malayalam.	German.

iii.—MATHEMATICS.

(a) *Arithmetic*.—The first four rules, reduction, vulgar and decimal fractions, proportion, practice, extraction of the square and cube roots, interest, discount, present worth, and stocks.

(b) *Algebra*.—Addition, subtraction, multiplication, division, involution and evolution, greatest common measure and least common multiple, simple and quadratic equations with easy problems.

(c) *Geometry*.—The first three books of Euclid, with easy deductions.

iv.—PHYSICS AND CHEMISTRY.

(a) *Elements of Physics*.

(b) *Elements of Chemistry*.

v.—HISTORY AND GEOGRAPHY.

(a) *History*.—

(1) The History of India, up to 1876.

(2) The outlines of the History of England up to 1858.

(b) *Geography*.—General Geography, and the Geography of India in particular.

140. There shall be three papers set upon the English language; one paper, of three hours' duration, on the grammar, structure, and idiom of the language, which shall test the candidate's ability to analyse sentences, to explain and recast forms of expression, and to explain figures of speech and express them in unfigurative language; one paper, of two hours' duration, on paraphrase and composition; and one paper, of one hour's duration, on translation from the candidate's vernacular language into English. In the case of candidates whose vernacular language is English the third paper shall be on English composition.

In the second language there shall be two papers, of which one shall contain questions on the text books, and on the grammar, structure, and idiom of the language, while the other shall consist wholly of passages for translation from English into the second language and from the second language into English, with the addition, in the case of vernacular languages, of original composition.

The passage for translation from English into the vernacular shall be the same for all languages. The passages for translation from the second language into English shall consist partly of extracts from the text-books and partly of extracts of somewhat less difficulty from other authors.

141. The questions in each subject shall not be more in respect of number or of difficulty than can be answered, within the allowed time, by a candidate of decided ability well prepared in the subject.

142. The Matriculation examination shall be conducted in the order of time and subject set forth in the following table, and the number of marks assignable to each subject shall be as therein specified:—

Days.	Hours.	Subjects.	Marks.
First day	10—1	English.....	70
	2—4		50
	4.5—5.5		30
Second day	10—1	Optional Language.....	40
	2—5		40
Third day	10—1	Arithmetic.....	50
	2—4	Geometry.....	35
			35
Fourth day	10—12	Algebra.....	40
	1—3	Physics.....	40
	3.5—5.5	Chemistry.....	80
Fifth day	10—1	History.....	50
	2—4	Geography.....	30
			510

† In the Deva Nagari character only.

143. Candidates obtaining not less than sixty per cent. of the aggregate number of marks shall be placed in the first class and arranged in order of proficiency as determined by the total marks obtained by each candidate. Candidates obtaining the minimum number of marks required to pass the examination, but less than sixty per cent. of the aggregate number of marks, shall be placed in the second class and be arranged in alphabetical order. Candidates failing to obtain 40 per cent. of the marks allotted to English and 35 per cent. of the marks allotted to each of the other branches shall not pass.

Register number.	Name of candidate.	Optional language.	Number of marks obtained.					Total number of marks obtained.	Whether passed or not passed.	If passed, in what class ranked.	Remarks.
			English.	Optional language.	Mathematics.	Physics and Chemistry.	History and Geography.				
			150	80.	120	80.	80	510			

144. A certificate signed by the Registrar shall be given to each passed candidate, setting forth the date of the examination, the optional language in which he was examined, and the class in which he was placed.

Applications for certificates shall reach the Registrar not later than the 1st of May succeeding the examination. A fee of three rupees shall be charged for all certificates issued on applications made after that date.

FIRST IN ARTS EXAMINATION.

REVISED BY LAWS.

145. The First Arts examination shall be held in Madras once a year, commencing on the 15th day of December, unless that day falls on a Sunday, in which case the examination shall be held on the Monday following. Candidates may also be examined at other places appointed by the Syndicate. The Syndicate shall publish annually, in the month of January, a list of places at which the examination shall be held.

146. Candidates for this examination must have completed two years from the time of passing the Matriculation examination either in this or some other Indian University.

147. Applications for admission to this examination, in the form hereinafter prescribed, must reach the Registrar not later than the 1st October preceding. Each candidate must forward with his application his Matriculation certificate, and, unless specially exempted from so doing, he must also forward, so as to reach the Registrar before the 1st December preceding the examination, a certificate, in the form hereinafter prescribed, from the head of some college authorized in that behalf by the Governor of Fort St. George in Council, to the effect that he has attended an authorized college or colleges for a period of at least four terms after passing the Matriculation examination and has completed the course of instruction prescribed by the University. Applications for exemption from the production of the latter certificate should be forwarded between the 1st July and the 1st September immediately preceding the examination at which the candidate wishes to appear.

148. No candidate shall be registered unless he have previously paid a fee of twenty-four rupees. Candidates failing to pass one examination may be admitted to subsequent examinations on payment of a like fee of twenty-four rupees on each occasion.

149. The First Arts examination shall be conducted by means of printed papers, which shall be given out to candidates on the same days and hours at each place of examination.

150. Candidates for the First Arts examination shall be examined in the following branches of knowledge:—

I.—ENGLISH LANGUAGE.

There shall be four papers on the English language. The first paper shall bear exclusively upon the texts prescribed for the examination. The second paper shall be upon the grammar, structure, and idiom of the language; the analysis of sentences; the explanation and recasting of forms of expression; the explanation of figures of speech and their transformation into unfigurative language; punctuation; the proper selection, number, and order of words in a sentence; the structure of paragraphs; and the ordinary metres used in English verse. The third paper shall be in composition. The fourth paper shall contain a passage for translation from the candidate's second language into English.

ii.—SECOND LANGUAGE.

One of the following languages at the option of the candidate :—

Sanskrit.*	Hebrew.	Urdu.	Telugu.	Uriya.
Greek.	Arabic.	Marathi.	Canarese.	French.
Latin.	Persian.	Tamil.	Malayalam.	German.

There shall be two papers on the second language. The first paper shall contain questions on the text-books and on the grammar, structure, and idiom of the language. The second paper shall consist of passages for translation from English into the second language, and from the second language into English, with the addition, in the case of vernacular languages, of original composition. The passage or passages for translation from English into the second language shall be the same for all vernacular languages. The passages for translation from the second language into English shall consist partly of extracts from the text-books and partly of extracts of somewhat less difficulty from other authors.

iii.—MATHEMATICS.

(a) *Algebra*.—Addition, subtraction, multiplication and division. Involution and evolution. Greatest Common Measure and Least Common Multiple. Simple and quadratic equations, with problems. Proportion and variation. Permutations and combinations. Arithmetical, geometrical, and harmonical progressions. Binomial theorem for a positive integral exponent.

(b) *Geometry*.—Euclid, Books I., II., III., IV., and VI., with deductions.

(c) *Plane Trigonometry*.—Measurement of angles. Trigonometrical functions and the solution of trigonometrical equations. Addition, multiplication, and division formulæ. The use of logarithms, properties and solution of triangles. Measurement of heights and distances.

There shall be three papers on Mathematics. The first paper shall be on Algebra, the second on Geometry, and the third on Trigonometry.

iv.—One of the following, at the option of the candidate :—A.—PHYSIOLOGY.

B.—PHYSIOGRAPHY.

A.—Physiology.

The examination in this subject will deal only with the leading facts respecting the structure and life of the human subject: all structural details will be omitted.

The rudiments of animal chemistry—carbon, hydrogen, nitrogen, oxygen, air, water, carbonic acid, carbonic oxide, ammonia, proteid substances, fat, starch, sugar, urea. Combustion.

The parts of which the body is made up. The tissues. The cavities of the trunk. The general structure of the head and neck. The skeleton. The disposition of the viscera. The nature of waste. The need of oxygen. Compensation for waste.

The characters of foods.

The blood as a medium of communication.

The nature and use of secreting glands.

The physiological properties of muscular tissue. The modes in which muscles give rise to movements.

The physiological properties of nervous tissue. The nature of sensory organs. The relation of the nervous system to muscles and to sensory organs. The general structural and functions of the brain and spinal cord.

A general account of the circulatory, respiratory, urinary, and alimentary systems. The functions of the liver. The structure and functions of the sweat glands. The regulation of the temperature of the body.

B.—Physiography.

Matter and Energy.—Elementary ideas of the various conditions of matter as regards stress, motion, and energy embracing heated states, electric and magnetic states, cohesion, and gravitation.

Elementary notions of chemical action.—The formation of binary compounds. Breaking up of compound matter into simple forms. The chemical elements. Water, its composition and different states.

Chemical and Physical characters of the crust of the Earth.—The chemical elements of which the crust is chiefly composed. The most abundant binary compounds occurring in mineral bodies. Difference between crystalline and non-crystalline substances. The common rock-forming minerals. Granitic rocks and volcanic products; lavas, scoria, pumice, and dust. Sedimentary rocks, conglomerates, sandstones, shales, and clays. Rocks of organic origin and their chemical composition; chalk, coral-rock and other limestones, peat and coal. Altered rocks; slates, schists, gneiss. Nature and origin of soils.

Internal Terrestrial Phenomena.—Observations indicating an increased temperature in the interior of the earth. Volcanic phenomena and distribution of volcanoes. Earthquakes and slow upheavals or subsidences of the Earth's crust.

* In the Deva Nāgari character only.

The Sea.—Salts dissolved in sea water, depth and form of sea bottom, remarkable inequalities. Distribution of temperature and density. Phenomena of arctic and antarctic regions; blocks, pack-ice, ice-bbergs, &c. Action of the sea upon the earth's crust. Influence of the sea in the distribution of climate.

The Atmosphere.—Height and composition; atmospheric pressure; use of the barometer. Distribution of temperature, horizontal and vertical. Use of the thermometer. Evaporation and condensation. Aqueous vapour, rainfall, ice, and snow. Regions of extreme dryness and of great rainfalls. Land and sea breezes. General conditions of climate. Action of rain, springs, rivers, and glaciers upon the earth's crust. General ideas of the changes which the earth's surface has undergone in the past.

Terrestrial Electricity and Magnetism.—Elementary notions as to the indications and effects of terrestrial electricity and magnetism. Thunderstorms; aurora; the mariner's compass.

The movements of the Earth and their results.—Methods of measuring angular space and time. Proofs of rotation and revolution. The earth's orbit. The plane of the ecliptic and plane of the equator. Effects of rotation and revolution. The distribution of light and heat on the earth's surface. Day and night. The year. The seasons.

The climate and other physical features of India.

v.—HISTORY.

- (a) The History of Greece to the death of Alexander the Great (B. C. 323).
(b) The History of Rome to the death of the Emperor Augustus.

The paper in History shall contain geographical questions bearing on the subject.

151. The questions in each subject shall not be more in respect of number or of difficulty than can be answered within the allowed time by a candidate of decided ability well prepared in the subject.

152. The First Arts examination shall be conducted in the order of time and subjects set forth in the following table, and the number of marks assignable to each subject shall be as therein specified :—

Days.	Hours.	Subjects.	Marks.
First day.	10—1	English Text.....	50
	2—5	English Language.....	50
Second day.	10—1.10	English Composition.....	30
	11.45—1.15	Translation.....	40
	2—5	Second Language.....	50
Third day.	10—1	Second Language.....	50
	2—4	Algebra.....	50
Fourth day.	10—1	Geometry.....	50
	2—4	Trigonometry.....	50
Fifth day.	10—1	Physiology or Physiography.....	75
	2—5	History.....	75
Totals.			600

153. Candidates that obtain thirty-five per cent. of the maximum number of marks in English, thirty-five per cent. in the second language, and thirty per cent. in each of two out of the other branches, shall pass; provided they obtain twenty per cent. of the maximum number of marks in the remaining branch and thirty-five per cent. of the aggregate number of marks. Candidates that obtain not less than fifty per cent. of the aggregate number of marks shall be placed in the first class and arranged in order of proficiency as determined by the total marks obtained by each candidate. All other candidates that pass shall be placed in the second class, and shall be arranged in alphabetical order.

Form of statement to be submitted by the tabulator.

Register number.	Name of candidate.	Number of marks obtained.					Total number of marks obtained.	Whether passed or not passed.	If passed, in what class ranked.	REMARKS.
		Second language.	English.	Second language.	Mathematics.	Physiology or Physiography.				
			200	100	150	75	600			

154. A certificate signed by the Registrar shall be given to each passed candidate, setting forth the date of the examination, the second language in which he was examined, and the class in which he was placed.

Applications for certificates shall reach the Registrar not later than the 1st of May succeeding the examination. A fee of three rupees shall be charged for all certificates issued on applications made after that date.

CERTIFICATES OF ATTENDANCE PRESCRIBED FOR THE FIRST ARTS EXAMINATION.

I hereby certify that.....
attended the Junior First Arts class of the..... College during the first term of 189.....
and that his progress and conduct have been satisfactory.
(Signature)

I hereby certify that.....
attended the Junior First Arts class of the..... College during the second term of 189.....
and that his progress and conduct have been satisfactory.
(Signature)

I hereby certify that.....
attended the Senior First Arts class of the..... College during the first term of 189.....
and that his progress and conduct have been satisfactory.
(Signature)

I hereby certify that.....
attended the Senior First Arts class of the..... College during the second term of 189.....
that his progress and conduct have been satisfactory, and that he has completed the course of instruction prescribed for the First Arts examination.
(Signature)

GOVERNMENT ORDER.

ORDER—dated 11th March 1891, No. 202, Educational.

The Report on Public Instruction for the year 1889-90, though dated the 17th September, was not received by Government until the 21st November 1890. It is clear and interesting, but is still open to the objection of inordinate length; and the suggestion made by Government in the review for 1887-88, to the effect that all remarks upon individual institutions should be relegated to an appendix, has not been carried out; in future this course should be adopted. Chapter II might have been considerably abridged, and the statements in paragraphs 133 to 136 inclusive were not necessary.

The general tables appended to the report are not drawn up in exactly the manner prescribed by the Government of India in the Resolutions communicated to the Director in G.O.s., No. 472, Educational, dated 7th August 1889, and No. 83, Educational, dated 29th January 1890. This should not be allowed to recur.

2. General.—Although the results obtained are in some respects open to unfavorable criticism, there was during the year under review much gratifying activity and progress in educational matters. The most unsatisfactory feature is, perhaps, the low proportion of success in the various University and Public examinations; on the other hand, the expansion of education, the advance of which during the past five years is illustrated by the annexed table, continued to be very gratifying:—

Year.	Number of institutions on the 31st March.	Rate of advance upon preceding year in the number of institutions.	Number of pupils on the 31st March.			Rate of advance upon preceding year in number of pupils.		
			Boys.	Girls.	Total.	Boys.	Girls.	Total.
		per cent.				per cent.	per cent.	per cent.
1885-86	16,014	2.7	397,040	53,797	455,837	4.5	15.5	5.8
1886-87	16,717	4.4	423,805	65,137	488,942	6.7	10.8	7.2
1887-88	17,355	3.8	440,123	65,535	505,658	3.9	6	3.4
1888-89	18,931	9.0	482,279	69,873	552,152	9.6	6.6	9.2
1889-90	20,512	8.3	522,207	78,344	600,551	8.3	12.1	8.8

These figures comprise both public and private institutions, and they show an increase during the period to which they refer in their numbers of no less than 28 per cent., and an advance of nearly 32 per cent. in the number of pupils, the increase in the case of girls (over 33 per cent.) being particularly marked.

The inclusion of the statistics relating to private institutions is calculated, however, to give an exaggerated idea of the progress which has taken place during the last five years, for a large portion of the difference between the figures for 1889-90 and those for 1885-86 is undoubtedly due to the improvement which has taken place in the collection of particulars relating to private schools, and which, so far as it indicates registration of schools capable of being brought under departmental supervision and into conformity with curricula for public schools, is satisfactory. How rapid this has been is apparent from the fact that the figures show an advance during the last three years of 131 per cent. in the number of private schools and of 170 per cent. in the number of pupils reading therein, but almost the whole of this increase is probably, merely nominal. Confining attention, therefore, to public institutions, it appears that these had risen from 14,859 on the 31st March, 1887 to 16,226 on the corresponding date in 1890, while the pupils had increased from 458,069 to 517,055. These figures represent advances of 9.2 and 12.9 per cent. respectively, and afford evidence of a real extension of education during the last three years.

3. An examination into the nature of the advance which has occurred during the last five years indicates in what direction the extension has taken place, viz., in the lowest stage of instruction particulars appear in the following statement, in which consideration is restricted to public schools for general education:—

Year.	Number of pupils on the rolls on the 31st March.	Percentage to total number on the rolls of pupils in the				
		High stage.	Middle stage.	Upper Primary stage.	Reading printed books.	Not reading printed books.
1886	427,427	1.4	5.6	6.8	70.5	15.7
1887	451,744	1.4	5.4	6.6	68.1	18.5
1888	458,290	1.5	5.5	6.2	66.5	20.3
1889	486,040	1.6	5.3	5.6	66.9	20.6
1890	510,121	1.4	5.4	5.5	66.8	21.2

Omitting the High stage, wherein no general tendency to advance or decline is noticeable, it appears that the numerical advance in pupils under instruction, which has been so conspicuous a feature of the last quinquennium, is mainly the result of increase in those not reading printed books—a phenomenon which must be expected as the consequence of the bringing in of indigenous schools, and which must continue for some years to come. At first sight it might be supposed that the growth of female education, which has made itself most noticeable in the lowest stages, would account for the fact noticed, but this is only partly true, for the same thing is observable in the case of boys, among whom no less a proportion than 19.6 per cent. was unable to read printed books in 1889-90, against 14.4 per cent. in 1885-86. As it can not be considered that there has been any deterioration in the quality of the education imparted in recent years, the main cause to which the decline in the percentage of pupils in stages above the lowest is apparently attributable, is the continuous extension of the recognition and taking of petty village schools of a very elementary type and the bringing of the same under departmental supervision. Another and hardly less important reason for the increased proportion in the lowest stage is the development of the infant standard under the new code.

4. Statistics of education in relation to population are given in paragraph 7 of the report and show proportions of pupils to population varying from 1 in 12 in Madras to 1 in 113 in Vizagapatam; it is observed that the heading of the fourth column of the table appearing in this paragraph comprises pupils in private institutions as well as those in schools and colleges actually connected with the department. In only two districts, viz., Madura and Vizagapatam, was there a decrease in the number of pupils under instruction. In the former, this was very trifling. The falling off in the latter has not been accounted for, but its low position in the list is due in part to the inclusion of the Agency population. Anantapur, which formed the subject of special remark in the review of last year, improved, but still maintained the same position on the list as it did in 1888-89. As regards the race and

religion of the pupils in all classes of institutions, particulars are given in the following statement:

Class.	Percentage to total number of boys and girls of all classes under instruction.	
	Boys.	Girls.
Europeans and Eurasians	7	40
Native Christians	5.8	18.7
Muhammadans	12.4	13.2
Hindus { Brahmans	13.6	13.9
Vaiyas and Sudras	62.1	44.4
Others	5.3	5.5
	1	3

The proportions in which the classes mentioned in this statement contribute to

Class.	Percentage to total number of all classes under instruction.			
	Boys.		Girls.	
	1880-81.	1889-90.	1880-81.	1889-90.
Native Christians.	6.5	5.8	30.3	18.7
Muhammadans	7.1	12.4	2.9	13.2

the total school-going population have altered considerably during the past decade, the changes being particularly marked in the case of the Native Christian and Muhammadan communities, which have altered their relative positions in that period as shown in the margin. The falling off in the proportion borne by Native Christian girls to the total school-girl population is apparently due

merely to the growth of female education among other classes, and this community

• Proportion of Pupils to Muhammadan Population.

1880-81	...	1 in 84	1885-86	...	1 in 58
1881-82	...	1 in 75	1886-87	...	1 in 44
1882-83	...	1 in 67	1887-88	...	1 in 40
1883-84	...	1 in 61	1888-89	...	1 in 34
1884-85	...	1 in 64	1889-90	...	1 in 26

inclusion of mosque school; the rapidity of the advance is illustrated by the figures in the margin.

With regard to the classification of pupils according to the occupation of their parents, it is observed that more than 13 per cent. of the total school population in public and private institutions was composed of the children of persons in Government employ.

5. *Examinations.*—The foregoing paragraphs deal with the brighter side of the report for 1889-90; the quality of the instruction imparted, as deducible from the results of various examinations, has now to be considered, and this portion of the report presents a less encouraging appearance.

Dealing first with the University examinations, it is observed that there was a slight decline in the total number of candidates examined. This is a matter of little moment, but the figures in the following table show a deterioration in the results of the examinations which is of much greater importance:—

• Institutions.

	Percentage of success.	
	1888-89.	1889-90.
Government	35.6	33.9
Institutions in Native States	43.6	33.9
Board	20.0	15.1
Aided	36.4	29.2
Unaided	26.7	15.9
Private	29.8	17.1
Total	35.9	28.0

The Government finds it difficult to believe that the candidates themselves are altogether responsible for a deterioration in results which has made itself apparent in all classes of institutions; if not due to capriciousness in examination, it must indicate deterioration in teaching. In this connection the attention of the Syndicate of the University will be invited to the remarks of the Director in paragraph 49 upon the results of the examination in optional languages for the B.A. degree; and Government concurs with him in thinking that a proportion of success amounting to 92 per cent. betokens undue leniency in the examination; a similarly remarkable average of success was also noticeable in the same branch of the Matriculation examination. The question of the insufficiency of the standard of general education required of students in the Medical College preparing for the L.M.S. degree has already been brought to the notice of the University, and it is hoped that that body will see its way to remedying this defect at an early date. The results of the F.A. examination, to which reference will be made further on, were disastrous, and one consequence of the low average of success was a small decline in the attendance in the B. A. classes of colleges for general education; the Director in paragraph 15

Year.	Percentage of pupils in all public institutions reading in Art Colleges for a degree.	Year.	Percentage of pupils in all public institutions reading in Art Colleges for a degree.
1880-81	9	1885-86	13
1881-82	10	1886-87	14
1882-83	10	1887-88	16
1883-84	11	1888-89	15
1884-85	13	1889-90	13

with a view to obtaining a degree, and it seems too soon as yet to adopt the view that the proportion has now reached its highest point.

6. In the following statement the results of the two most important University examinations are shown in more detail:—

Examination.	Number of Examinees.		Percentage successful.	
	1888-89.	1889-90.	1888-89.	1889-90.
B. A. { Optional	446	406	57.1	44.8
{ Language	568	524	58.0	57.2
F. A. {	1,979	2,013	25.7	17.8

The unprecedentedly low proportion of successful candidates in the F.A. examination is the result of the failure of a very large number of candidates in mathematics, and the Director, it is observed, ascribes this last fact to a general deterioration in the teaching of this important subject. In certain individual cases, however, the results of the examinations speak by no means well for the instruction afforded; thus more than 50 per cent. of the candidates appearing for the B.A. degree from the Presidency College failed in mathematics, and out of 60 candidates sent up from the Rajahmundry College for the F.A. examination, no fewer than 53 were unsuccessful in the same subject; even allowing that the mathematical papers were unusually difficult, these figures can hardly be regarded as creditable to the institutions concerned, and an improvement in the mathematical teaching staff of the Rajahmundry College seem to be called for. With regard to his remarks on the subject of providing boarding-houses for the mofussil students in the Presidency College, the attention of the Director is invited to G. O., No. 108, Educational, dated 26th February 1889. The attention of all Collectors will be drawn in the Revenue Department to the remarks contained in paragraph 89 of the report in regard to the selection of stipendiary scholars for the College of Agriculture.

7. Turning now to the examinations connected with Secondary education, it is apparent from the figures given below that the deterioration which affected the University examinations made itself evident in the Middle School examination also :—

Examination.	Number of examinees.		Percentage of success.	
	1888-89.	1889-90.	1888-89.	1889-90.
Matriculation	7,327	7,104	25.3	22.6
Middle School (Boys)	9,154	9,091	46.3	38.2
Girls	415	421	71.0	77.4

The results were thus by no means good, but it is to be observed that the quality of the passes showed an improvement when compared with 1888-89, no less than 13.6 per cent. of the successful candidates for the Middle School examination having obtained a first class and 64.1 per cent. a second, against 12.5 and 60.9, respectively, in the preceding year. The high percentage of girls who passed the

Institutions.	Percentage of success.	
	Matriculation.	Middle School.
Government	33.0	39.3
Board	30.0	
Schools in Native States	33.0	31.0
Aided	28.0	41.0
Other	23.0	
Private pupils	8.0	43.0

and "English History," the results obtained by "pupil candidates" were inferior to those achieved by "others," the difference being particularly marked in the case of the latter subject, in which the percentages of success of the two classes were 39 and 64, respectively. The deterioration of Mathematical teaching is noticed in connection with schools sending pupils to the Middle School examination. In the same examination the proportion of passes in the industrial subjects was remarkably high, but this, as the Director observes, doubtless indicates that the methods of examinations in these branches are still in the tentative stage. Probably this defect does not admit of immediate rectification, but it is obviously undesirable that such a premium on technical subjects should continue, and every effort should be made to introduce greater equality and regularity in the system of marking.

In connection with Secondary education, there remain for consideration only the three Upper Standard examinations. In the case of these tests also, the Government regrets to remark a general falling off in the results obtained as compared with the previous year. Particulars, so far as relates to boys, appear in the subjoined table :—

Standard.	1888-89.		1889-90.	
	Presented.	Percentage passed.	Presented.	Percentage passed.
VII	1,596	69.1	1,551	68.5
VI	1,060	63.0	1,060	64.9
V	969	33.4	901	31.7

There was thus a decline in all standards except the sixth.

(To be continued).

EDUCATIONAL NOTIFICATIONS.

LEAVE AND APPOINTMENTS.

M.R.Ry. P. Venkataramayya Arungal, Assistant Inspector of Schools, acting in the Fifth Division, furlough for one year from or after the 13th April 1891, under Article 371 of the Civil Service Regulations.

Mr. James M. Hensman, B.A., First Lecturer, Rajahmundry College, to act as Principal of the same college, in the Fourth Class, during the absence of Mr. E. P. Metcalfe, on leave or until further orders.

Mr. T. T. Logan, B.A., Inspector of Schools, Southern Circle, Fourth Class, to act in the Third Class during the absence of Mr. E. P. Metcalfe on furlough, or until further orders.

Mr. T. R. Scott, B.A., Second Lecturer, to act as First Lecturer, Rajahmundry College, during the employment of Mr. J. M. Hensman on other duty, or until further orders.

M.R.Ry. K. P. Guriswami Aiyar, B.A., First Assistant, Calicut College, to act as Second Lecturer, Rajahmundry College, during the employment of Mr. T. R. Scott on other duty, or until further orders.

M.R.Ry. T. Somasundara Rao, Assistant Inspector of Schools, Third Division, to act as Assistant Inspector of Schools, Fifth Division, during the employment of Mr. G. Bickle on other duty, or until further orders.

M.R.Ry. K. V. Kachayya Sastri, Sub-Assistant Inspector of Schools, Madras, to act as Assistant Inspector of Schools, Third Class, Third Division, during the employment of M.R.Ry. T. Somasundara Rao on other duty, or until further orders.

The last two appointments to have effect from the date of M.R.Ry. P. Venkataramayya's departure on furlough.

C. A. GALTON,
for Chief Secretary.

NOTIFICATION.

LOWER SECONDARY EXAMINATION.

The following addition to Educational Notification dated 14th January 1891, and published at page 42 of the *Fort St. George Gazette*, Part I. of the 20th January 1891, has received the sanction of His Excellency the Governor in Council and is published for general information :—

In line 5, Section IV of Article 3, add the following after the word "years":—"and does not fall below 18 years and who are not pupils of unrecognized schools."

The following changes are made in Article 1 of Educational Notification dated 14th January 1891, published at page 42 in Part I of the *Fort St. George Gazette* of the 20th January 1891 :—

In line 5, omit the word "or" before "March," and insert after "March" the words "April or May."

NOTIFICATION.

To Article 2 of Section V. of the Educational Rules published in the *Fort St. George Gazette* of the 24th February 1891, the following clause shall be added :—

"The Director may exempt a Professor or Assistant Professor from wearing a gown during the time he is occupied in experimental teaching, or in the laboratory or lecture room, in clinical instruction, or in a workshop, where the wearing of a gown would cause serious inconvenience; but such exemption shall in no circumstances extend to times when he is not so occupied."

J. F. PRICE,
Chief Secretary.

GRANTS AND FEES.

Managers of all Aided Colleges and Schools, Municipal, Local and Private, are informed that sanction for the resumption of payment of grant under Article 11 of Chapter II of the Grant-in-Aid Code for the year 1891-92 will not be accorded until the institution has been recognized in accordance with the provisions of Section III of the Educational Rules.

They are also informed that the same rate of fees as that hitherto levied in the Fifth Class should be levied in the Fourth and Fifth Forms.

Office of the Director of Public Instruction,
Madras, 11th March 1891.

H. B. GRIGG,
Director of Public Instruction.

BUILDING AND OTHER SPECIAL GRANTS.

Managers of Results Schools are informed that they are eligible for grants for school buildings, furniture, apparatus, &c., under Chapters X and XI of the Code equally with schools aided under Chapter II, but such grants can only be allowed for schools whose permanence is assured.

Office of the Director of Public Instruction,
Madras, 6th April 1891.

H. B. GRIGG,
Director of Public Instruction.

List of Subscriptions received by the Superintendent, L. A. Press,
Madras, on account of the "Journal of Education," from

1st to 30th April 1891.

		RS.	A.	P.
Head Master, Municipal High School, Karoor	for 1890	4	8	0
Head Master, Normal School, Ongole	for November 1890	0	8	0
Mr. G. Buktavatsulu Naidoo, Madras	for 1890	4	8	0
B. Barrow, Esq., Isle of Wight	do.	6	8	0
Do. do.	(in part) for 1891	0	9	0
Chairman, Municipal Council, Bimlipatam	do.	4	8	0
Head Master, L. F. Middle School, Alattur, via Palghat	do.	4	8	0
Mr. S. Rungiah Chetty, Madras	do.	4	8	0
N. Sankunni Warriyar, Madras	do.	4	8	0
A. Sooriamaden, Karikal	do.	4	8	0
Principal, Town High School, Erode	do.	4	10	0
Secretary, Temporary Memorial School, Cocanada	do.	4	8	0
Surgeon-Major E. F. Drake-Brockman	do.	4	8	0
Head Master, Municipal High School, Karoor	do.	4	8	0
Principal, Church of Scotland Mission College, Madras	do.	4	8	0
Head Master, Anglo-Vernacular High School, Triplicane	do.	4	8	0
Head Master, L. F. Middle School, Kasargod	do.	4	8	0
Mr. G. Buktavatsulu Naidoo, Madras	do.	4	8	0
Head Mistress, St. Francis Xavier's Girls' School, Madras	do.	9	0	0
Agent and Manager, Madras Railway	2 copies for 1891	13	8	0
Madras	3 do. Feb. 1891 to Jan. 1892	4	8	0
Dr. G. Oppert, Madras	for 1891	4	8	0
President, District Board, South Arcot, Cuddalore	do.	4	8	0
T. R. Toussaint, Esq., Bangalore	do.	4	8	0
Miss DePrazer, Waltair	do.	4	8	0
Miss E. Palmer, Madras	January to June 1891	2	8	0
Mr. C. Venkata Row, Vengal	do.	4	8	0
K. Vasudeva Iyengar, Srirangam	February 1891 to January 1892	4	8	0
Mr. M. Venkataram Iyer, Madras	April 1890 to March 1891	4	8	0
Rev. M. Packiam, Shiyali	April 1891 to March 1892	4	8	0
President, Taluk Board, Kasargod	December 1890 to Nov. 1891	4	8	0
and Uppinangudi	April 1891 to March 1892	4	8	0
Head Master, L. F. Board School, Saidapet	Jan. to April 1891	1	8	0
Manager, Davaaswam Middle School, Peruvembu	for 1891	4	8	0
Dr. J. Murdock, Madras	do.	4	8	0
Miss Cuthbert, Madras	do.	4	8	0
Rev. J. A. Vane	for 1890 & 1891	10	0	0
Chairman, Municipal Council, Conjeeveram	for 1891	4	14	0
A. J. Watson, Esq., Singapore				
		Rs.	177	9 0

133

The

Journal of Education

Madras

Vol. V.]

JUNE 1891.

[No. 6.]

INDUSTRIAL EDUCATION.

Industrial education forms a part of Technical education and in this Presidency we have altogether 19 Industrial schools attended by 739 pupils. Besides these 19 Industrial schools, there are 14 institutions to which special Industrial classes are attached, attended by 904 pupils. Of the 19 Industrial schools, one is a Government institution, five are under Board management, and the rest are private, chiefly Mission institutions. Considering the large number of Mission Industrial schools, the majority of pupils, as might be expected, are Native Christians. The 739 pupils in *bonâ fide* Industrial schools are distributed as follows among the different sections of the population:—Europeans and Eurasians 84, Native Christians 338, Muhammadans 199, Brahmans 6, Vaisyas and Sudras 95, Others, including Pariyahs, 17. It is a matter for regret that the Hindu community, and more especially the Brahman, is so poorly represented in Industrial schools. The blame of course does not wholly attach to these classes. Most of the Mission Industrial schools are charitable institutions in which the pupils receive their boarding and lodging. This is also the case with the well-known Muhammadan institution in Madras, the Anjumani-Mufeedi-Ali Islâm. Such facilities are nowhere offered to Hindu pupils. The pecuniary responsibility incurred in starting an Industrial school is very great, and Native private enterprise in the matter of Industrial

education is, therefore, totally absent. We trust, however, it will not be long before some of the well-to-do and public-spirited Hindu gentlemen will come forward to do for poor Hindu children, especially those belonging to the artisan classes, what Christian and Muhammadan philanthropy has done for poor Native Christian and Mussulman children. We are also of opinion that the existing schools are not taken advantage of by the Hindu community to the extent they should be. In this matter the Hindu public has a very important duty to carry out. Some of the Board Industrial schools are very poorly attended. The Municipal Industrial school, Tinnevely, an institution which has been in existence for the last five or six years, had only 21 pupils on the rolls on the 31st March 1890. We have also had complaints that members of the District Boards and Municipalities take very little interest in the working of these institutions. The following are the remarks of the Director on the working of some of these schools:—"Far from encouraging is the progress of the Municipal Industrial school, Chidambaram;" "the Victoria Municipal Industrial school, Negapatam, showed a marked decline in attendance and fared very badly at inspection;" "the school (the Municipal Industrial school, Madurai) did not receive from the Municipal Council that sympathetic encouragement and financial support to which it was fairly entitled;" "the Municipal Industrial school, Tinnevely, made no appreciable progress during the year;" and so on. (*Vide Report on Public Instruction, 1889-90, passim*). It is of course an open question whether Local Boards and Municipalities are justified in directly engaging in Industrial education. We believe Government consider that the primary and legitimate duty of Local Boards is to promote Primary education. But we do not see why Industrial schools should not also be encouraged in towns where Primary education has advanced considerably.

The want of a suitable staff of trained teachers has been one of the chief obstacles in the way of the progress of Industrial schools. Of the 80 teachers engaged as instructors, as many as 53 hold no certificates. The Victoria Technical Institute has been helping by offering scholarships for the training of teachers, but it is hoped that managers will also see that the teachers they employ are duly qualified. On the whole we consider a fair beginning has been made in the way of Industrial education.

THE IMPORTANCE OF GENERAL READING TO THE TEACHER.

It is a regrettable fact that few teachers appreciate the importance of acquiring the habit of systematic and general reading as an indirect means to effective teaching. Many native teachers imagine that if they make special preparation for a lesson, by making themselves masters of the text-book in use, nothing more can possibly be required of them.

Every profession has its special evils which need to be counteracted by a course of reading specially adapted to stimulate such faculties as are not sufficiently exercised in the performance of professional duties. If this is true of the clergyman, the barrister, and the doctor, it is much more true of the average teacher. Dealing, as he does, with minds smaller and weaker than his own; teaching, as he does, the same lesson again and again; having at his fingers' ends the elementary facts that make up the subject as far as it is taught, it is not to be wondered at that he is apt to dogmatise, that his mental horizon becomes contracted, that his culture and imagination are of a less pronounced type than that which distinguishes the members of other professions. We have known teachers whose very gait, tone of voice, and manner of conversation proclaimed their profession—peculiarities, which made them, perhaps, not the most desirable members of society.

For this very reason a teacher should seek, almost as his first duty, the companionship and society of those outside his own profession. For this reason he should travel as much as his means allow him to do, should visit countries whose natural charms and peculiarities, and the history of whose people make a special appeal to his taste and imagination. But above all, because most within his reach, he should gradually acquire a small library of his own, consisting of books which broaden his culture, stimulate his imagination, and supply him with intellectual food which unconsciously shall give a tone and a fulness to the information which he ought as a teacher to be able to impart. One of the most discouraging characteristics in the average native teacher is the apathy he displays towards those questions of general interest which would have an almost direct influence on his teaching.

Scarcely one native teacher in a hundred possesses even the nucleus of a small library. Poverty is the ready excuse. But it is a transparent one. If students really had a love for knowledge in itself, if they valued at its proper worth the education which is offered them so cheaply in this country, they would at least preserve the books which have been instrumental in adding a title to their names. Of what real and lasting use is the knowledge which alas! the Universities of this country only appraise, but do not impart, if it leaves the student without that self-discipline and intellectual craving, which are the only guarantees of further acquisition and development!

Our souls have revolted as we have listened to teachers whose knowledge of the lesson in hand was obviously confined to the wretched text-book, to the subject, the lesson, unenlivened by apt illustration, or by an appeal to the imagination, or by efforts of interesting information. The acquisition of the words of the book, and not the ideas which they represent as a whole, seemed to be the sole object in view. There is no man of whom it is not true that he must be always learning if he would be successful as a teacher. A knowledge of the practice and theory of teaching is something, but that teacher is seriously mistaken who supposes that that is all which is necessary. A man may be a born teacher and a born disciplinarian; or he may approximate to both states with experience, and without any special knowledge of the science, the history, and the art of teaching. But no man ever acquired culture and the information which makes the full man of Lord Bacon's famous essay, without honest and systematic study of the best books of the world's best writers. If a choice had to be made, we should not hesitate to choose the man of general culture as a teacher rather than him whose knowledge was narrowed to a pedantic view of his particular profession.

Let it not be supposed that by insisting on the importance of general culture we are indirectly encouraging the habit of desultory reading. We know the evils of such a habit. To the student it is a fatal habit, and one unworthy of him. More than ever, nowadays, do we need to be reminded that true culture and mental discipline can only be attained by having an object before us in our reading. Circulating libraries and book-clubs have a tendency to demoralise us by thrusting on our attention the latest

publication, be its merits real or imaginary, be it a novel, a book of travels, of philosophy, or of history. To read with an object, which is to read for our good, we must specialise in a sense. We must read widely and deeply in the subject that interests us most; and no better means can we adopt, if we read aright, to increase our general culture and information. The proper study of history, for instance, includes a good knowledge of attendant subjects, such as literature, social and political economy, philosophy, geography, ethnology, numismatics, and other collateral subjects. Generally speaking we cannot help thinking that the subject of history is one which teachers in this country might, with advantage to themselves and their pupils, take up as a special study. At least we know no subject in which native teachers, as a rule, display so little knowledge, and which accordingly is so badly taught. Geography is another subject to which the attention of the native teachers may well be called. The scientific principles which underlie that subject are discarded by, or are unknown to the teacher; and as taught, it is, therefore, one of the least educative subjects in the school curriculum. Next to one's own experience as a traveller, the best preparation for teaching geography is the perusal of standard works of travel, and the press notices of foreign and contemporary countries. We know the danger that may arise from a teacher coming to a lesson with a mind well stored with information on some special subject. A side issue may carry him off and lead him to magnify the importance of what is merely incidental, to the detriment of that which is essential to the lesson. But this is a contingency unfortunately so remote, that we may well, for the present, ignore it. At the worst, it is better that the pupils should have their mental faculties stimulated by the living voice of the teacher in fully illustrating some passing allusion in the lesson, than that the mere words of the text-book should be thrust down their throats by an unenlightened, unenthusiastic instructor. It is surprising how readily the pupils discover whether the knowledge of the teacher is superficial or thorough. How readily they lend themselves to the teacher who warms up to his subject, and who illustrates the subject in hand by apt allusions, and a fulness of knowledge born of the heart! How readily they lend themselves to trouble, annoy, and show disrespect to the superficial teacher who halts, retracts, and at the best can tell them no more than can the

book in their own hands! The words of the text-book are but dry bones which the skilful teacher must clothe with warm, living flesh! And this can only be done by him who has come fresh from the fountain of knowledge, and who has had his imagination refreshed and invigorated in the inexhaustible stream.

In India such a practice as we have here advocated is particularly desirable. The natives of this country are essentially conservative in their mode of thinking, in their religion, and in their social life. They are forbidden to travel beyond the seas, and class is divided from class with a rigidity which has no parallel in the world's history, save in the distinction between the free and the servile in ancient times. Not only is social intercourse forbidden between caste and caste, but the humanizing influence of the home life is sadly restricted. Even the history of their country is not for them what their respective histories is to the English, the Americans, the Germans, and others, viz., the best school for the stimulation of patriotism. We firmly believe that the salvation of this country may be worked out through the agency of education; but how much will that consummation be retarded, if the fundamental principles of education are not appreciated; if the methods—or rather the want of methods—in vogue are such as to perpetuate just those evils, which have led India bound for so many centuries, and which find her still wanting in originality, tenacious of precedent, and sunk in superstition!

NEWS AND NOTES.

LOCAL AND INDIAN.

Mr. H. B. Grigg, the Director of Public Instruction, inspected the Chingelput Reformatory on the 25th ultimo.

We understand that Mr. John Adam, Principal of Pachaiyappa's College, goes home on a year's furlough in September next.

Four girls have passed the recent Matriculation, four the F.A. and one the B.A. examination of the Calcutta University from the Bethune College.

The Maharani's Girls' School, Mysore, has been taken over by the Mysore Government and has been placed under the general supervision of a Committee.

Mrs. Brander, Inspectress of Girls' Schools, Northern and Central Circles, who is now on a visit to America, is expected to return to duty during the early part of July.

The *Madras Mail* gives us to understand that the Anderson Memorial Church and the Evangelistic Hall will probably be purchased by Government for the erection of a Law College.

We hear that a resolution has been passed to the effect that no girls are to be allowed to read in the Nizam's College, Hyderabad, and that the girls now reading there are required to leave the College.

We are glad to find that the proposed scheme for the establishment of a School of Music has taken definite shape and there is likelihood of a flourishing Musical institution being established in the Presidency Town. It is to be hoped that Native gentlemen particularly will come forward to support the institution.

The Committee of the Doveton College has issued a circular asking public support for the Institution. Three methods are mentioned by which help can be proffered to the Institution, (1) by paying a monthly subscription of Re. 1; (2) by becoming a Life Member on payment in a lump sum of Rs. 200; (3) by sending children to be educated in either or both branches of the Institution. We trust that the Institution will meet with the support it deserves.

In his excellent speech delivered on May 14th at the Anniversary of Pachaiyappa's Charities, Mr. F. B. Hanna, M.A., M.E., F.M.U., made the following remarks:—"During the 49 years which have elapsed since this school was first founded the standard has been gradually raised. In the year 1865 some students went up from this College and passed the Matriculation Examination, in the year 1880 a class for the F.A. Examination was formed, and in the present year the ambition of the Trustees, long-looked forward to by them, has at last been realised; for a body of students, wholly educated in the College, have taken the Bachelor of Arts Degree at the Madras University. The success which was achieved on this occasion was very encouraging. Two of the students took the 5th and 7th places in the Examination. In the History branch especially the results were remarkably good. Out of the eight students that were sent up all passed. There were only three students in this branch placed in the first class, and two of those were Pachaiyappa boys, and those two students occupy the places of the first and second in the Presidency.

if girls were educated so to concentrate themselves on their school work as to cease to take an interest in home life, in home society, in neighbourly and in social, as well as in domestic, pursuits.

Helène Lange in "Higher Education of Women in Europe," gives the following brief but interesting account of the Royal Holloway College for Women:—"It can be reached from London in an hour and a half, and is situated in Egham on a little hill in one of the most lovely of English landscapes. The buildings are truly princely. The sum expended in their erection amounts to nearly ££90,000. They are built in French Renaissance style, and surround two large courts. The length and breadth, respectively, of the enormous rectangular building is 550 and 376 feet. One can form an adequate idea of the colossal size of the building when it is stated that it has about a thousand rooms and three thousand windows. It is designed to accommodate, pleasantly, two hundred and fifty students and teachers with their servants; possesses a chapel of its own, a picture gallery worth £112,000, extensive outhouses, used as kitchens, machine rooms for steamheating, electric light, etc. This college is under the management of Miss Bishop."

Many teachers, says the *New York School Journal*, are not careful enough to see that the meanings of words spelled are understood. The true test is found, not in the repetition of definitions, but in the composition of sentences. Miss Kate Field recently gave an incident that admirably illustrates this point. "I've learned a whole column of spellings and meanings," exclaimed Bessie. "Do you understand what you have learned?" asked her sister. "Of course I do; just hear me. It begins with 'anarchy'—a-n-a-r-c-h-y, anarchy, confusion, disorder, misrule." "Before you go any further," said her sister, "put that word into a sentence." Bessie thought a moment, and then said triumphantly, "Did any one ever see such an untidy place! Sarah Jane, come in here with your broom and sweep up this anarchy!" On another occasion Bessie gave the dictionary definition of "consistency," but added, "I can explain it much better in my own way. I understand exactly what it means. It means either having only one side to your mind, or else keeping the same side always on top. I haven't consistency myself." In both of these cases the dictionary definitions had been faithfully learned, but without adequate ideas of what the words meant. It needed the sentence to test correctness of knowledge.

REVIEWS AND NOTICES OF BOOKS.

NOTES ON BRADSHAW'S ANTHOLOGY. By J. CREIGHTON. Madras: V. Kalyanaram Iyer.

We have looked very carefully into these Notes and are glad to be able to congratulate the Editor on the very thorough way in which he has executed his task. The "Introductions to the various Poems, mainly consisting of critical extracts from various sources, should be found most helpful to students. The Notes are well and carefully written, and not overdone.

1. BACON'S ADVANCEMENT OF LEARNING, Book I. By F. G. SELBY, B.A. Madras: V. Kalyanaram Iyer.
2. Do. By W. E. HOARE, B.A. Madras: Srinivasa, Varadachari and Co.

Each of these editions appears to us to be trustworthy and to afford B.A. students as much help as they can possibly require. After comparing a few pages of the Notes of each annotator we hardly like to give the palm to either. Both the annotators are Oxford men, and both seem to us to have done their work well. Students who can afford to do so might well purchase both editions. The get up of Mr. Selby's book is in every way superior to Mr. Hoare's.

HAZLITT'S LECTURES ON THE ENGLISH POETS. With Notes by GEO. MADDOX, B.A. Madras: Srinivasa, Varadachari and Co.

In undertaking the task of annotating these selected lectures Mr. Maddox undertook a very heavy task. The frequent allusions and references must have involved a great deal of research, and we think that the annotator has done his work well. So far as we are aware Mr. Maddox's is the only annotated edition in the market. There can be no doubt that the Notes will greatly lighten the student's toil and will help him in the elucidation of many difficult passages. We have much pleasure in cordially recommending this edition of Hazlitt's Lectures with Notes.

LESSONS IN DOMESTIC ECONOMY. By E. A. KEELY, Lady Principal, Doveton Girls' School. Second Edition, revised and improved. Madras: Higginbotham and Co. Price As. 8.

We are glad to find that a Second Edition of this excellent little work has been called for. We note that much has been done to improve the book. There is a short Introduction of six pages and nine chapters.

These results are so remarkable for the first time of sending up boys for the highest examination, that the Trustees have every reason to be congratulated on their success; there is no doubt that it greatly surpasses the most sanguine expectations that the founders of this college could possibly have entertained. Our thanks are due to the teaching staff, for these results not only show great care on the part of individual members, and, as the Principal has said much heavy work, but they point to the excellent system which must be established throughout the school, and that is the basis of all success. I understand that the Principal, Mr. Adam, proposes to take a well-earned furlough, so as to recruit himself for further efforts. Let him rest assured that the system which has commanded such success in the present instance, may safely be allowed to develop itself under the adequate arrangements that will no doubt be made by the Trustees for carrying on the work during his absence. I trust—in fact I feel sure—when he comes back he will then find that not only has the College kept up its present reputation but it has gone on increasing it, and will, I hope, long continue to do so.

LITERARY AND GENERAL

The University of Berlin gives students their choice of 716 courses of lectures.

Among books which should be in every School and College Library is Mr. Sonnenschein's *The Best Books: a Reader's Guide to the choice of the best available books in all Departments of Literature* down to 1890. About 50,000 books are mentioned. The price is 31s. 6d.

The University of Vienna had 4,409 regular, and 1,811 non-matriculated students during the last half-year. Of the regular students, 2,202 studied medicine, 1,571 law, 413 philosophy, and 216 theology. Of the non-matriculated students, 1,440 medicine, 401 law, 357 philosophy, and 13 theology.

Professor Drummond, in speaking of authors who have helped to form his character, mentions Ruskin as the one who taught him to see the world he lived in; Emerson as the one who taught him to think; from Dr. Channing's printed sermons he learned to believe in the reality of God. "Yet life," says Professor Drummond, "will teach us far more than all we get from books."

The task of finding a successor to Herr von Boetticher in the office of Under Secretary of State in the Prussian Cultusministerium is one of peculiar difficulty, as the work is among the hardest in the service of the State. About 90,000 different documents are received yearly by the Cultusministerium, which all come into the hands of the Under Secretary of State. If the latter is to give any consideration to the documents, his daily work demands more than twelve hours' unremitting labour.

Steps are already being taken to carry out the Emperor's wishes as regards the teaching of history in German schools. A beginning is made in the Cadet schools in which the Emperor takes the greatest interest. Professor Dr. R. Steuzler has been commissioned to draw up a completely new work on the history of Brandenburg and Prussia under the Hohenzollerns. This work is to begin with the present and depict the history of the country as far back as the First Elector in a series of pictures, each complete in itself. Although the work is at present only intended for the cadet schools, yet it is considered certain that it will be the text-book for all the high schools in Germany.

The two Teachers' Registration Bills of this session, says our London namesake, have now been thoroughly sifted by the select committee at Westminster, and more than a dozen persons have given evidence, one of whom—Professor Laurie—occupied a whole sitting of the Committee. Happily the investigation is being carried on in a spirit of broad inquiry, and the case for a learned profession of teachers has consequently had as fair a hearing as could be desired. We feel tolerably confident that some good results will follow, though we doubt whether, at present, a thoroughly logical and comprehensive scheme will be evolved.

Dr. Abbott, in distributing the prizes to the pupils of the Sutton High School for Girls, dwelt on the importance of preserving that condition of freshness and vigour of mind and character of which their work gave evidence. To that end he urged that there should be no overwork, no over-pressure, but that the pupils should be allowed to take an interest in their studies, so that they might not feel that kind of depression and worn-out condition too often felt by overworked students. He would cultivate the habit of admiration, the art of finding out and discerning with the mind's eye things which were good and noble. He held with the poet that admiration, as well as love and faith, constituted the elements by which human nature was nourished. He should be very sorry

giving good sound advice on the following subjects: *Air—Sun and Light—Cleanliness—Water—Food* (in 3 parts)—*Dress—House linen and Needle-work—Income and Expenditure—the Sick-room*. We would suggest for a new edition a chapter *on the Kitchen—How it should be kept—What it should contain—How to control the cook, &c.*

1. MACAULAY'S ESSAY ON ADDISON. Edited by A. E. DUCHESNE, B.A., (Cantab). Madras: Tawker Sadananda and Co.
2. Do. Edited by P. T. SRINIVASA AIYANGAR, M.A., L.T. Madras: Srinivasa, Varadachari, and Co.

Here again we have two rival editions of one of the F.A. Texts for 1892. Mr. Duchesne's edition is worthy of all praise. The Notes where necessary are full, and always to the point. Mr. Srinivasa Aiyangar's edition contains many blemishes. We take this opportunity of giving it as our emphatic opinion that a Native gentleman, however learned he may be, cannot produce a work on English which will not exhibit bad idioms, and other faults only to be looked for in a foreigner.

1. MILTON'S COMUS. With Introduction and Notes, by WILLIAM BELL, M.A. London: Macmillan and Co.
2. Do. Edited and fully annotated by ROBERT HARVEY, M.A., LL.D. Madras: Tawker Sadananda and Co.
3. Do. With Introduction, Copious Notes and Life of Milton, by S. SATHIANADHAN, M.A., LL.B. Madras: Srinivasa, Varadachari and Co.

These are neat and handy editions of Milton's charming mask. Dr. Bell's Edition was published in 1890, and is therefore entitled to first place. It forms one of Macmillan's well-known Indian Series and is worthy of all commendation. Dr. Harvey's will be found a good working edition, but exhibits signs of that haste mentioned in the Introduction. The Notes are sound. It is to be regretted that no Index was added. Mr. Sathianadhan has availed himself of all the best sources of information on the Poem, which he has served up in a well-digested form for the use of students.

1. SCOTT'S LAY OF THE LAST MINSTREL, CANTOS IV.—VI. Edited by G. H. STUART, M.A., and E. H. ELLIOT, B.A. London: Macmillan and Co.
2. Do. Edited by S. ANANTANARAYANA AIYAR, B.A., B.L. Madras: Srinivasa, Varadachari and Co.

Messrs. Stuart and Elliot's edition forms one of Macmillan's Indian Series. The Introduction is meagre. The Notes are decidedly good and

139
269
give the student every help he ought to require. There is no Index to the Notes we regret to observe, and this defect is curiously backed up by what we suppose to be an oversight. The pages containing the Notes are not numbered.

Mr. S. Anantanarayana Aiyar tells us in his Preface that he has "not attempted anything original" in this edition. He has "not hesitated therefore to lay under contribution all available sources of help." The book is open to criticism, but we have already expressed our opinion of annotations by Native Graduates. There is an Index to the Notes, which, so far as they are selected, are good and reliable.

MADRAS PRESIDENCY COLLEGE CALENDAR FOR 1891. Madras: Printed at the Lawrence Asylum Press.

We welcome the appearance of this Calendar, which should not only prove of great use to the present alumni of the College, but be found highly interesting by all those who have at any time been connected with the Institution.

Pachaiyappa's College and the Engineering College both publish Calendars, and we hope that the Christian College and other Colleges will soon follow suit. The book before us is very nicely got up and seems to us to contain all that is needed, from a history of the College to the latest additions to the Staff. We note that among the Staff Mr. Stone's name occurs as belonging to the University of Oxford. This is surely an error. We give the short Preface *in extenso*:—"This, the first edition of the Presidency College Calendar, will doubtless be found to contain many imperfections with respect both to what has been included and to what has been left out. The Principal will be glad if former students will kindly bring to his notice such imperfections." It is only through their willing co-operation that the Calendar can become what it ought to be." We notice a good many errors in the occupations of the Graduates, lists of whom begin on page 109. The very first entry is wrong, as will be seen on reference to the name on page cxxvii, Appendix O, of the *Madras Educational Calendar and Directory*.

LESSONS IN APPLIED MECHANICS. By J. H. COTTERILL, F.R.S., and J. H. SLADE, R.N. Macmillan, 1891.

This is an elementary manual intended for the use of Engineering classes, and every page bears evidence of its being the work of practical teachers. It is meant for students whose mathematical knowledge does not extend beyond the elements of geometry and algebra: but a preliminary chapter on mensuration and curve construction supplements

what the authors know by experience to be the weak part of the average young man's geometrical knowledge. From the first chapter to the last the authors have made the concrete side of the subject more prominent than the abstract: and they have reversed the ordinary methods of treating the subject, in that concrete examples have been introduced not as subsequent to and as illustrative of theoretical principles previously given, but as introductory to, and leading up to, the theoretical presentation of the subject. The whole is divided into three parts, the first treats of *The Principle of Work*, the second of the *Strength of Materials*, and the third of *Hydraulics*. Each part is sub-divided into a number of chapters, and to each chapter is added a collection of illustrative examples, freshly prepared for the work. We speak from experience in the teaching of this subject when we say that the book before us will be a very great boon to both teachers and students in engineering schools, for whom Twisden's Practical Mechanics has been almost the only available text-book till now. The printing and general get up of the book are all that we could desire for a class-book; and it is sure to be extensively adopted.

- (1) THE HARPUR EUCLID, BOOKS I—IV. By LANGLEY and PHILLIPS.
London: Longmans, Green and Co.
- (2) GEOMETRICAL DEDUCTIONS, BOOK I. By BLAIKIE and THOMSON.
London: Longmans, Green, and Co.
- (3) AN ELEMENTARY TREATISE ON MECHANICS. Part II, Dynamics.
By REV. ISAAC WARREN. London: Longmans, Green and Co.
- (4) THE ILLUSTRATED PRIMARY ARITHMETIC. By REV. ALLAN MAXWELL.
Lucknow: The Methodist Publishing House.

(1) This Edition of Euclid deserves all commendation for its beautiful typography, and excellent diagrams. Otherwise it does not appear to differ materially from the editions ordinarily in use.

(2) This little work presents a carefully graduated course of training in the art of solving geometrical deductions. It supplies a series of well-arranged deductions in Book I of Euclid and contains many valuable hints and instructions to the would-be problem solver.

(3) Dynamics here includes Kinematics and Kinetics but excludes Statics and we are glad Mr. Warren has sensibly stuck to the old-fashioned name. His treatise is indeed throughout somewhat old-fashioned but clear and full of apposite illustration. The printing is very trying to the reader, and the figures often blurred and smudgy.

(4) This little book is based on the models now so common in America and Germany; we may call it Kindergarten Arithmetic. As.

however, the 'kinder' are presumably in this case Indian, they will be quite unable to appreciate many of the lessons and illustrations; the former indeed seem to have been too frequently written up to the latter. Nevertheless great care and ingenuity is exhibited; but we should imagine such a book would prove most useful in the vernacular.

THE ELEMENTS OF EUCLID. By HORACE DEIGHTON, M.A. Cambridge: Deighton Bell and Co., 2nd Edition, 1891.

This is a new translation from the Greek Text of Euclid, but without such a slavish adherence to the mere verbal forms of the original as to sacrifice the conciseness of the reasoning to the closeness of the translation. Though there are some minor points open to question—such, for example, as the introduction of the definition of Orthocentre and centroid of a triangle among the definitions at the beginning of Book I, when their proper place is after it has been proved that the three perpendiculars of a triangle, as also the three medians, meet in one point. Yet we have no hesitation in saying that the whole is an excellent and thoroughly trustworthy guide to the elements of plane geometry. It is in typography, woodcuts, and general arrangement a great improvement on the Pott and Todhunter of our student days.

The author, while giving Euclid's mode of proof in each case has added an alternative one when simpler. He has also incorporated with the text a large number of important propositions such as the requirements of modern examinations demand familiarity with. He has added to Books III and VI some of the most important propositions on Radical, Axis, Poles and Polars, Harmonic Proportion, Centres of similitude and Transversals. A most extensive collection of exercises is given at the end of each book and at the end of the work,—a set of easy ones first, and then a set of more difficult ones. In the second edition which is now published the author has also introduced all the symbols and abbreviations usually allowed in writing out Euclid papers. These abbreviations and symbols are sometimes considered "newfangled" and objectionable. Yet the most condensed edition of Euclid we have ever seen is that published in Latin by Isaac Barrow, the tutor of Sir Isaac Newton. In that edition all the references are given as briefly as possible in the margin, and every possible verbal contraction is made use of. To our mind it would be an improvement if the author were to adopt the artifices for abbreviation to a still greater extent—at all events after the First Book. We hope that Deighton's Euclid will rapidly replace Todhunter in our Schools and Colleges.

WEBSTER'S INTERNATIONAL DICTIONARY. London: George Bell and Sons. 2,118 pages, 3,500 illustrations. Price in cloth boards, 31s. 6d.; in sheepskin, 42s.

We have to thank the Publishers for sending us this splendid book. It is our old friend "Webster" in an entirely new dress. Wherever we look we find changes and additions. The Preface is most interesting and instructive. From it we learn that "the first or original edition of Webster's large or Unabridged Dictionary was published in two volumes quarto in the year 1828. In 1840 a second edition appeared, 'to which a Supplement was added in 1843.' Noah Webster died in 1843. In 1847 a third edition was published, in 1859 a fourth edition, in 1864 a fifth edition, and in 1879 a valuable supplement to that edition. 'In the same year' (1879) says the Preface, 'a more formal beginning was made in the preparation of the edition which is now completed and which will be known as the Revision of 1890.'"

We have tested the pronunciation assigned to many words, and while we think that this department has been admirably done, there remains still something to be desired. It is a mistake in our opinion to give two (sometimes three) pronunciations as permissible. Take the very word 'pronunciation' itself; this word we are told is to be pronounced *pronunsiashun* or *pronunshiashun*. We consider the first to be the correct way of pronouncing the word and the second to be wrong. We cannot but regret that eminent as are the American Orthoëpists who have undertaken the heavy task of guiding two great nations in the way to pronounce their language, greater weight and authority was not given to the work by employing English specialists as co-workers. The spelling is still American, as in *honor* and *traveler*, but we are told that these words are also written *honour* and *traveller*. It is useless to grumble at this, though we do think that in an *English Dictionary* it would have been better to say *honour* (in England), *honor* (in America), and so on, wherever there is any marked difference. The additions to the vocabulary are innumerable and most valuable. In the matter of definition we have only the heartiest praise to bestow upon the work. The illustrations are in many cases quite new and show a great advance in the art of illustrating a popular Dictionary. The illustrative quotations are brief but much to the point. The one fault we have to find with them is that they do not give 'chapter and verse.' The appendixes are many and most valuable. They have, like the rest of the work, undergone thorough revision.

No School or College Library can be considered even tolerably equipped without this work, and we hope that the Inspectors and

Inspectresses of Schools will make it a point to see that every school in the Presidency supplies itself with a copy at the earliest possible opportunity. The price, in the same style of binding as the old Webster, is only 31 shillings.

A STUDENT'S HISTORY OF ENGLAND. By SAMUEL RAWSON GARDINER. Vol. II. 1509—1689. London: Longmans, Green and Co.

We have already welcomed and reviewed the First Part of this History; and we now accord an equal welcome to the Second. All the characteristics distinguishing Mr. Gardiner as a historian are here present. In fact, we are almost inclined to say they are too present, to the exclusion of some other qualities without which history can never charm, and in the case of boys cannot even interest. The author is so sternly judicious, he marshals his facts with such unerring scientific accuracy, he represses so unceasingly his own personality, that his work too often loses colour and interest, and even at times becomes bald. The 'spacious times of great Elizabeth' are transformed into a page of the Nautical Almanac, and the story of the Long Parliament reads like a Parliamentary Summary from *The Times* of 1891. Henry and Elizabeth, Charles and Cromwell, move through the pages like automata, of which every hinge and joint is unsparingly laid bare. Withal, Mr. Gardiner has been unable to divest the great Tudors and Stuarts of every vestige of romance; but he has so nearly done so that we tremble for the result when the dreary Hanoverians are submitted to a like treatment. Mr. Gardiner has succeeded in depressing the 16th and 17th centuries to the level of the 19th; will he be able to raise the 18th to that humble platform?

One feature of this history we distinguish as of great value, the attention paid to foreign politics and their influence on the home Government. The relations of Elizabeth and her ministers with continental powers, for example, receive an attention seldom accorded them in histories of much greater pretensions. The illustrations are remarkably good and well chosen. The portraits of course speak for themselves, but we fancy the pictures illustrating architecture, dress, &c., are hardly so much referred to in the text of Vol. II as in the preceding part. We would gladly sacrifice the second rather bloated presentment of Henry VIII for the strangely missing portrait of Mary, Queen of Scots. The ludicrous broadside cut of the execution of the Martyr King might also have been omitted.

We may note that by an oversight which will doubtless be corrected in a new Edition, the usual list of books for further study is not appended to Part V, dealing with Henry VIII and Elizabeth.

We conclude by extracting two paragraphs as evidence of Mr. Gardiner's skill in presenting a complicated question in small compass with great clearness. The first states Cranmer's position in the Church of England:—

"Somerset's ecclesiastical reforms were as rash as his political enterprises. Cranmer had none of that moral strength which would have made some men spurn an alliance with the unscrupulous politicians of the time. He was a learned student, and through long study had adopted the principle that where scripture was hard to understand it was to be interpreted by the consent of the writers of the first ages of Christianity. As he had also convinced himself that the writers of the first six centuries had known nothing of the doctrine of transubstantiation, he was now prepared to reject it—though he had formerly not only believed it, but had taken part in burning men who denied it. It is quite possible that if Henry had been still alive Cranmer would have been too much overawed to announce that he had changed his opinion. His exact shade of belief at this time is of less importance than the method by which he reached it. In accepting the doctrines and practices of the existing Church till they were tested and found wanting by a combination of human reason and historical study of the scriptures, interpreted in doubtful points by the teaching of the writers of the early Church, Cranmer more than any one else preserved the continuity of the Church of England and laid down the lines on which it was afterwards to develop itself. There was, therefore, a great gulf between Cranmer and the advanced Protestants, who, however much they might differ from one another, agreed in drawing inferences from the Scripture itself, without troubling themselves whether these inferences conformed in any way to the earlier teaching. This gulf was constantly widening as time went on, and eventually split English Protestantism into factions."

The next extract defines the position of Wentworth and Eliot in the third Parliament of Charles I:—

"Charles's third Parliament met on March 17, 1628. The leadership was at once taken by Sir Thomas Wentworth, who, as well as Eliot, had been imprisoned for refusing to pay the loan. Through the two men now worked together, they were, in most points, opposed to one another. Eliot had been a warm advocate of the war with Spain, till he found it useless to carry out the war under Buckingham's guidance. Wentworth disliked all wars, and especially a war with Spain. Eliot believed in the wisdom of the House of Commons, and thought, if the king always took its advice, he was sure to be in the right. Wentworth thought that the House of Commons often blundered, and that the king was more likely to be in the right if he took advice from wise counsellors. Wentworth, however, believed that in this case Charles had unfortunately preferred to take the advice of foolish counsellors; and though not sharing the opinions of Eliot and his friends, threw himself into the struggle in which the House of Commons was trying to stop Buckingham in his rash course. From time to time Wentworth contrived to show that he was no enemy of the king, or of a strong government such as that which had existed in the reign of Elizabeth. He was however an ardent and impetuous speaker, and threw himself into any cause which he defended with more violence than he could, in calmer moments, have justified to himself. He saw clearly that the late aggressions on the liberty of the subject weakened, instead of strengthening, the Crown; and he now proposed a bill which should declare them illegal in the future. Charles refused to accept the bill, and Wentworth, unwilling to take a prominent part in a struggle with the king himself, retired into the background for the remainder of the session."

ACKNOWLEDGMENTS.

We have to acknowledge with thanks the receipt of the following:—

BOOKS.

- Madras Presidency College Calendar for 1891. Madras: Printed at the Lawrence Asylum Press.
- Scott's Lay of the Last Minstrel, Cantos IV—VI. Edited by G. H. Stuart, M.A., and B. H. Elliot, B.A. London: Macmillan and Co.
- Shakespeare's Tempest. Edited by A. C. Liddell, M.A. London: Longmans, Green and Co.
- Macaulay's Life and Writings of Addison. Edited with Introduction and Notes by A. E. Duchesne, B.A., (Cantab). Madras: Tawker Sadananda and Co.
- Milton's Comus. Edited with Introduction and Notes by S. Sathianathan, M.A., LL.B., (Cantab). Madras: Srinivasa, Varadachari and Co.
- Milton's Paradise Lost, Book I. Edited with Notes, &c., by T. Y. Arogiawami Pillai, M.A. Madras: Srinivasa, Varadachari and Co.
- Lower Secondary Arithmetic. By J. S. Devasahayam, B.A. New Edition. Madras: Addison and Co. Price 8 Annas.

MAGAZINES.

All the usual Magazines have been received.

CORRESPONDENCE.

To the "Editor, Madras Journal of Education."

DEAR SIR,—I send you as literal and spirited and poetical an English version of the "Persicos odi" as I am acquainted with. It is the rendering of an uncle of mine (Dr. Symonds of Clifton) now dead, and was printed for private circulation many years ago. If you concur with my estimate of its beauty and faithfulness, I will endeavour to find you a few other classical translations of equal merit by the same hand.

W. A. SYMONDS.

TRANSLATION.

Boy, I dislike this Persian frippery.
These linden-twisted chaplets please not me,
Pray take no pains to find for me where grows
The latest lingering rose.
Twine not the myrtle spray with studious care,
Plain myrtle leaves we both may fitly wear,
Thou as my page, I as I sip my wine
Beneath my thick-leaved vine.

EDUCATIONAL SUGGESTIONS.

The question is often raised as to whether or not this great amount of reading of books on pedagogy is not overdoing the matter, and whether better results would not follow from practical demonstration. Do not teachers often waste their forces in this manner?

The first qualification of a teacher is to bring to his work a large personality. Bring that qualification and enter on the work of teaching in earnest, and a moderate amount of other qualifications will often suffice, and bring successful results. In discussing education, the larger problems must be looked at before the smaller ones. Society or civilization is a growth,—an organizing of increasing forces. The society of to-day is very different from that of five hundred years ago. There has been a decided upward movement in the growth of man, notwithstanding that at first it was downward. I believe in the primeval purity of the race, but that did not make Adam understand the powers and forces which have been discovered since his day, or make Eve understand the running of a sewing machine. We may accept the facts of the development of society from Adam, without conflicting with our religious belief.

It is now the custom to take a child, and in the period of eighteen years, from the age of 6 to 24, to reproduce in him and appropriate for his use the entire civilization of the age in which he lives, which has required the labors and developments of four or five thousand years to produce. This is requiring a great deal of the teacher, but far more of the child.

Regarding the question of how the child is to be brought into relation with the civilization in which he is born, a great deal is due to heredity. People may ridicule the idea of aristocracy of birth, but it would be curious if a law holds good in the lower orders of animals and then fails in regard to the human race. The voice, the language, the thought, is often strikingly reproduced in the offspring. The best way to teach a child grammar is to provide him with a good father and mother. It is a difficult matter to teach the proper use of language to a child who has first learned incorrectly. Take a cultivated man, one who by application has acquired a correct use of language. He may write his thoughts absolutely correctly, but let him but talk, and as his thoughts come fast he will almost inevitably, at times, make the mistakes which he acquired in his first expression of thought. His mistakes are the effects of his struggle over early conditions and rules.

The environments have much to do with the production of broad-minded, broad-browed, and unconventional men. Such men acquire more by rubbing against men than the narrow-minded in going through college. They appropriate for themselves the best attributes of society.

Men get more from their relation with civilization than by education, in adapting means to the end. It is wrong to compel children to write compositions as soon as they can write. Form is of but little moment, and beautiful expressions fall flat if the ideas are lacking. In education the main feature is to teach ideas. It is an effort to apply means to ends. Education comes behind the developments of civilization and picks up the efforts of genius which appear on every side.

As education increases, the curriculum of the school enlarges, but the purpose and end at which we aim should not be lost. There are now apparently two views regarding education: one, that it is theoretical, disciplinary; the other, utilitarian. Education should teach the child to take the place or station in the world to which he shall be called. The teacher's duty is to bring the child into sympathy with existing civilization. This brings up the big question of the various degrees of education. It is an easy matter to criticise our colleges, but they have been built up as the result of the civilization and education of our country, and therefore we must accept them. There are two systems by which education may be attained, by the public schools and colleges, and the private institutions. Their work is parallel, but there should be a closer relation between them.

If a boy is ever to be a student, or ever to be accurate in life, it must be developed in the first and second stages of his education, and the teacher who has charge when he learns to spell and read and cipher is the one who is making the boy's future. For when he possesses the knowledge of the subjects, he possesses knowledge of accuracy of form and processes of the mind which, if not learned here, never will be. There is a tendency to introduce new subjects which might be left out, and allow the more important branches to be neglected. No matter how brilliant a man may be, a mis-spelled word takes away from our estimate of him.

Children go to school too late. There is no reason why a boy should be eight years old before he can read, or eighteen years old before he is ready to enter college. This is due to the fault or carelessness of parents. The child should be taught facts early in life, while the reason is sleeping. A boy has no business to think, but by the time he is twelve years old the reason gets ahead of memory, and up to that time his memory should be given all it can do, and the facts that are learned will not be forgotten, but will lay the foundation for accurate scholarship. Don't teach a child to think, but give him something to work on. Give him something to memorize; not useless material, but salient truths. In teaching the history of the United States, it is useless for the child to memorize the details of every battle, but it is essential that he should have an understanding of the events of Europe which have a bearing

upon our history. Let the child, from seven to seventeen, learn the great facts of history from the founding of Rome to the Declaration of Independence, and in after years the eyes will stand distinct, upon which he shall build up the fuller knowledge.—DR. FRANCIS L. PATTEN, in the *Journal of Education*, Boston.

A PUBLIC SCHOOL REGISTER.

As birds of passage on some mid-sea isle,
From divers lands and bound on divers ways,
In company assemble for a while,
Then lose each other in the ocean haze:
So we are parted when are done the days,
Of our brief brotherhood within this pile;
The world grows wider then; new hopes beguile;
And from new lips we look for blame or praise.
No lifeless page is this, that bears enrolled
Names once familiar, and bids re-appear
Forgotten faces. One has climbed to fame
In law or letters: one proved greatly bold
In battle: one—it may be the most dear—
Just does his life's work well, and is the same.

F. W. B. in the *London Journal of Education*.

ENGLISH LITERATURE IN SCHOOLS.

By H. COURTHOPE BOWEN, Esq., M.A.

HOW THE TEACHER AND THE EXAMINER SHOULD DEAL WITH IT.

It is just ten years since I had the honour of addressing the members of this College on the subject of English Literature as a part of school education; so I hope you will not think that I am pressing the matter unduly upon you in bringing it forward again to-night. In these ten years many things have changed; and amongst other changes may be reckoned a marked one in the attitude of teachers with regard to much of their work. There is less of that airy amateurishness which used to be so discouraging and so exasperating, and more of professional spirit and sense of responsibility. Teachers—not many, perhaps, yet, but still some—have come to consider not only that it is worldly wise, but that it is also their bounden duty to examine into the educational values of school subjects, and how these values may be realized; and the proposal to discuss such problems is no longer received with quite so marked an aversion or so very thinly veiled a contempt. Of course, I am speaking of teachers in general, and not of the members of this College, the very existence of which is a protest against the teacher's ignorance of his work. That we are still a long way from being what we should be, no one feels more keenly than I do. Nevertheless, we have improved; and in no subject is this improvement making itself more visible than in the treatment of English Literature—at any rate, in our girls' schools. I do not make this statement at second-hand. During the period mentioned, I have examined, and more than once, nearly all of our best-known public schools in this subject; I have also examined great numbers of our High Schools for Girls, both orally and on paper; and I have given lessons in English Literature to great varieties of pupils of all ages. It is on the results of the experience so obtained, that I wish to speak this evening.

A little while ago, it used to be thought—and the opinion is, I believe, still held by a few—it used to be thought that the only way to deal with literature in schools was to choose a piece of poetry which one liked oneself

very much and give it to the pupils. If they seemed to understand it and to take to it, well and good; if they did not, well, they were hopelessly dull, and there was nothing to be done. You might, perhaps, tell them that you liked the poem, and let your voice tremble a little when you mentioned its name. But beyond that all was sacrifice, mere degradation of the beautiful. To give a school flavour and to fill up the time, you might require the whole or part of the poem to be learnt by heart, and you could require the notes at the end to be got up. These would explain a few hard words and phrases, and add a few scraps of philology and antiquarianism. Some authorities prescribe spelling and parsing. You ended up the whole with an examination, without which no subject is complete. In the examination you asked whatever chanced to strike your fancy, while at the same time you endeavoured to preserve the appearance of abstruse learning. For the life of me, I have never been able to discern where, in all this, the education came in—at least, if education is to be taken to mean the effects in knowledge, development, and skill which one mind consciously produces on another. Nor do I see why we should call the process *Lessons in Literature*, any more than we should call breaking stories by the roadside *Lessons in Geology*. Of the two exercises I prefer the stone-breaking; for though, like the lessons in question, it covers you with much dust, while it spoils your facility of movement and the delicacy of your touch, still it does strengthen your arm; whereas the lessons referred to produce no beneficial result whatever. They do not even teach you spelling; nor do they improve the memory, for the memory is hurt, and not helped, when what is distasteful and ill-understood is thrust upon it. Now, I trace progress and improvement in the fact that there is an increase, slow, but steady, in the number of people who not only disbelieve in the plan I have described, but also believe in the possibility of a better plan.

To disbelieve is so easy and so cheap, and at times has almost the appearance of thoughtfulness. But positive belief in something better is the only test of real value.

I could name four of our greater schools for boys where a better plan is in use; and I could make a list of thirty girls' schools where the work is better still—naturally, inasmuch as so many of our women teachers are trained.

The error of the plan I have been speaking of seems to me to arise partly from the mistaken idea that the teaching of Latin and Greek in our schools is *literature teaching*; and partly from the endeavour to transfer the method used for Latin and Greek to the teaching of English, without noticing that most of the conditions in the latter case are not the same. But to assume that all pupils who are not preternaturally dull must be able at once and of themselves to understand any piece of poetry as soon as it is put before them, shows an ignorance both of child-nature and of the art of all good poets. A poet, whether he writes for a little clan or for a whole nation, presupposes many things in his readers. He assumes that the materials he uses are either already familiar to them or may be readily understood and imagined by them: that, inasmuch as he both aims at suggestion and works by means of suggestions, these will be perceived and appreciated: that the language he uses; his treatment of his subject, and his method of construction are all well within the powers of his readers: that they possess certain feelings, and that what he sets before them will call these feelings into action. He trusts that the associations which attach themselves to the things mentioned and to the very words and phrases used, will exist for his readers as well as for himself. He counts on his allusions and the particular bearing of them being known and perceived, or they will darken and not shed light upon his meaning. Nay, if the writer be a Milton or a Virgil or a Burke, he will go further, and import into his work phrases, lines, and even whole passages from well-known sources, with little or no change in them: and, not tearing the charge of plagiarism, will rely on the very familiarity of his borrowings to produce an effect of literary beauty. He expects the descriptive power of his epithets to be appreciated, the graphic force of his metaphors, the beautifying and illustrative effects of his similes, to be

perceived and recognised. He appeals constantly to the general experience of humanity. These things, and perhaps others, the literary artist demands from his readers. He will succeed or fail mainly according to his skill in these matters—though, of course, his special singing gift and novelty of invention will also count for much, especially with the highly cultured few. The list I have given is a long one, but of course I do not intend to imply that all these demands are made in every case. We must, however, be prepared for all or any of them being made in any particular poem.

If you now call to mind your knowledge of what children know, what they feel, and the degree and nature of their insight into language, the first result will probably be a disposition to deny that Literature is a subject fitted for school use. But a little reflection and some small amount of experience will, I think, cause you to modify this opinion. You will see that, though it may not ever be possible to convey to our pupils the *whole* of the author's meaning (how many adults ever take in the *whole* meaning?), it may still be possible to convey *enough* of the meaning to make the endeavour well worth our while. You will notice that poems and prose works differ considerably in the character, degree, and number of the demands which they make on the reader; and that what is hard under one set of circumstances may be easy under another set. For instance, it is one thing to use *John Gilpin* with little London children, and quite another to use it with, say, children in a country village in Devonshire; while, again, a poem about ants and beetles and glowworms will be more readily imagined by country than by town children. I need not go into detailed argument in this matter. You will, I know, agree with me that a choice of pieces suitable for educational use may be made; and that to meet the various degrees of progress and development of our pupils the pieces chosen may be arranged in a properly graded series, according to the character, degree, and number of the demands which they make on the reader. What I want more particularly to urge upon you is that, when making your choice and when about to give your lesson, you should carefully observe and consider what the demands of the piece in question actually are; whether any of them can be met by what the pupils already know and feel; whether the children can be helped to know and to feel what is wanted for the rest; and, if so, how. If you consent to consider these points, it will not be necessary for me to lay any stress on a fact of my experience—and probably also of yours—that the difference in results is immense between leading our pupils through a carefully graded course, and plunging them (as we too often do, especially in Latin and Greek) headlong into literature, the greater part of which is wholly outside their sympathies, and much beyond their powers to imagine and to understand.

One of the first and most important things, then, which call for our attention in literature-teaching is the *introductory lesson*, or rather *talk*, which is to prepare our pupils for the demands about to be made on them: the recalling and brightening up of the material already possessed and which is now needed, the imparting of the fresh material required, the glimpse at the kind of construction which is to follow—which will often mean the bringing in of a rough model of some kind, e.g., a football match to introduce a battle, modern emigration to introduce the coming of the Danes, pictures of people and places, &c.—the attuning of the feelings, the awakening of interest; or, as I have sometimes more briefly expressed it, the putting the child in the right place, turning his face in the right direction, and striking the keynote. If the poem be very short, all this can be done at once; if it be long, then this preparatory work should be done in easy stages, introduced just when they are wanted. Do not think that I am recommending anything elaborate and grandiose. You will not, of course, like an Italian peasant, build a large and imposing gateway to lead up to the merest scrap of a cottage. Everything should be in proportion and in harmony, both with the subject and with the children. Even we grown-up people know in our own persons how, at times, a little preliminary chat on the subject will put us in the right tune for a picture, or music or a play which, otherwise, might perhaps have found us somewhat cold and sluggish and irresponsible. Some years ago I published in the *Journal of*

Education two specimens of such introductory talks as I mean (*Training of the Constructive Imagination*, July, 1885, and *Training of the Aesthetic Sense*, Sept., 1887), and you will find a very good one, of a somewhat similar nature, by Mr. H. C. Beeching, in his excellent little edition of *Julius Cæsar*. As a rule, editors of English classics for schools give us instead a biography of the author and a discourse of dates and originals—useful for getting up with a view to marks. I do not know any other use they can have in schools.

I will now touch upon the various other points of importance in literature-teaching, taking them as they occur to me, and not meaning to imply anything by the order in which they come; but before doing so I should like to be allowed to restate what I said in 1881 as to what I mean by "literature-teaching." "By the study of literature as literature, I mean the study of a poem or prose work for the sake of its substance, its form, and its style; for the sake of the thought and imagination and feeling it contains, and the methods used to express these; for the sake of its lofty, large, or acute perception of things; its power of exposition; the beauty, force, and meaning of its metaphors, its similes, and its epithets; the strength and music of its language. . . . My aim is to lead my pupils to appreciate thought as thought, a work of art as a work of art; and, thereby not only to enlarge, enrich, and refine their minds and hearts, but also to bring them to a knowledge and ability of expressing themselves, when they have something to say, both correctly and well."

The Subject-matter.—By this I mean something more than the mere story of the play or poem. It should also include the ideas dealt with and set forth. In Shakspeare's plays, for instance, there is the exposition of character and of human life; in *Comus*, the plea for purity and "true virginity," and the thinly-veiled allegorical reference to contemporary religion; in Blake's *Dream*, pity for the little things of this world and the evidence of providential care for them all; in Southey's *Blenheim*, the condemnation of war; and so on. These things are often of more value than the story itself—if there be a story at all. Sometimes they are so manifest that we need only call attention to them and pass on. Sometimes they are intricate and elusive, or wholly beyond our pupils' range of knowledge and feeling—so that we have to omit them and content ourselves with the story only. What I wish to urge is that, if we omit them, we should do so consciously and for good reasons. We are far too much given to taking it for granted that our pupils have noticed and understood what has been placed before them. Our task as teachers is to attract attention, to aid understanding, to stir feeling, and we cannot do this by silence and indifference. A word or two at the right time will often be quite enough, and commonly this will best come in the introductory talk. We must not forget that most of the literature we have to use was not written for children. We have to adapt it to them, and them to it, to bring them within its range; and this requires care and skill—not very unlike the care and skill required in primary science lessons in observation. Our task is not to force our opinions and refinements on our pupil, but to attract and hold their attention.

I have mentioned the *exposition of character* as one of the things to bear in mind in connexion with a play of Shakspeare's. The common plan is to give our pupils the exposition of some notable critic—Coleridge, or Gerivius, or Dowden, or Mrs. Jameson, or another—and to leave them to get it up. I do not think this plan a good one educationally. It is better than nothing, it is true, and often pays in examination. But that is all that can be said for it, even when we do require (which is not often, I fear) a few illustrative quotations from the play to be added. It distracts the pupils' attention from the facts themselves, and brings them into a habit of trying to say things prettily rather than to say them truly. Some of the characters have been so embroidered upon in this way by the critics that all the original form and colour is hidden, and Shakspeare himself would not recognise were his own work came in. A better plan is to collect at any rate the *chief* sayings of a character; to decide briefly in each case what sort of a person he or she must be to say such a thing on such an occasion; to add what the other

persons say about the one in question: and then to unite these results into the construction. After this—not before—may come the descriptions of the notable critics. This work done by pupils and teacher together will often not only be very faulty, and much inferior, I fear, to what Coleridge, or Chaucer, or Lamb, or Dowden would do. But it is the right kind of work, is extremely interesting, promotes close attention to the wording of the play, and fosters the habit of getting your facts first, and then drawing your conclusions from the evidence before you. The constructiveness of the final stage is of especial value educationally, when the different traits are collected, and then modified, reconciled, and united into one complete character.

Text.—Then there is the *text*—that is, the mode in which the author expresses himself, the wording of his sentences, the precise epithets, metaphors, similes, &c., which he uses in particular passages. Much of this—or perhaps all of it, in the case of a short poem—may be learnt by heart. But the main thing is to ensure that the forms of expression used are understood and appreciated—for they then become part of the learner's own power, and means of utterance, whether they do not. To effect this, something must be made to rest upon the understanding and appreciation. The *text* is referred to under the head of description of characters will do this excellently; and so will the paraphrasing, or complete interpretation, of passages. Mere rote-learning commonly betrays itself by inaccuracies inparaphrasing made in the important and unimportant words alike. The learner who has learnt intelligently may make mistakes, too; but these seldom affect the important words.

Paraphrasing.—There is frequently so much misunderstanding connected with the meaning of the term "paraphrasing," that I must ask leave to treat the matter somewhat fully. I have called it the complete interpretation of passages. I might also call it an exercise in thought-reading. It is not a rearrangement of words which is demanded, but the unpacking and exhibiting clearly and at large of the whole meaning of a passage which, in the author in question, is expressed in a brief and condensed or figurative form, or perhaps, at times, rather suggested than expressed. It requires in the pupil a knowledge of the real force of the allusions, and of the bearing of the passage as a whole on its context, and the occasion on which it is used. It requires an appreciation of the exact force and intention of the metaphors, similes, and epithets, and a consciousness of that associated meaning or colour which certain words and phrases acquire, and which are brought out most distinctly in the contrasts between so-called synonyms. It is only when this knowledge of this insight into what the author desires to convey to us has been sought for and gained that we are in a position to truly appreciate, and really delight in, the art and beauty of his mode of expression. To ascertain whether our pupils have gained this knowledge and insight, we must require them to tell us what the passage has told them. This exercise in giving outward expression to the thoughts and feelings which they have made their own, is of great value educationally. We do not substitute our much lesser selves for Milton or Bacon, but strive to observe, understand, and feel the power and beauty of their language; nor is there a better way than the exercise proposed to "prevent a boy from contenting himself with that vague knowledge which is not knowledge at all, but mere impression, supported by dim disconnected images, or, it may be, by the more musical sounds or rhythm of the language." Let me take a particular instance—from Wordsworth:—

"I have learned
To look on nature, not as in the hour
Of thoughtless youth; but hearing oftentimes
The still sad music of humanity."

What we want our pupils to do is to think out and tell us in their own way—but in a connected statement—what is meant by the metaphor "music of humanity," and why this music is said to be "still sad," and in what respects the attitude of mind implied in this, differs from that "in thoughtless youth,"

and why this newly acquired power is also a "joy." When these things have been grasped, and understood, and stated, then, and not till then, shall we be able to appreciate the skill and beauty with which Wordsworth has expressed the ideas.

There is another mode of interpretation which I have used in literature-teaching with the happiest results—the translation of *word-pictures* into *form-pictures* by means of drawing, or, as I prefer to call it, "graphic representation." We make no demand for art in such work; and the exercise can be used with the youngest pupils. It consists in requiring the pupils to "represent" on paper a scene or action or figure from their poem. It induces a close examination of what the poem actually says; it causes the formation of definite, clear mental images; it allows the pupil to use in expressing himself that kind of language most intelligible to the young—pictures; and it affords the teacher an excellent means of testing how far the pupils have understood what has been described. Often enough the pictures are awkward, hard to understand, very droll indeed. Don't laugh at them—at least, while the children are present. Try to understand them, to be able to read them. It will be worth your while as teachers, for this is one of the best means I know of for finding out the contents of children's minds—yes, and of adult minds too. Moreover, remember that many (especially novices in the use of language) can express even in the clumsiest diagram or outline what they cannot express in any other way.

Allusions.—There are two points to be attended to in dealing with allusions, viz., the origin from whence the allusion is drawn and the application of the allusion to the context in which it is used. Teachers and annotators of text-books are usually careful enough about the former point; but the latter they frequently omit altogether. To take a few instances: When the Elder Brother in *Comus* calls for "some gentle taper" to be his "Star of Arcady or Tyrian Cynosure," it is not sufficient to give an account of Calisto, daughter of Lyncæus, King of Arcadia, and of her being changed into the constellation of the Greater Bear, while her son Arcas was changed into that of the Lesser Bear or Cynosure. We still require to be told that the brother is asking for a light or star to steer by. Indeed, the latter information is the more important of the two. The same remark applies to what is usually dragged in in the wake of such expressions as "Bellona's bridegroom," "caviare to the general," "it out-herods Herod," and the like. The last-named is sometimes a peculiarly unhappy instance of mistaken learning. Under "Herod" we are usually given a short biography—not always of the right Herod. Unfortunately, the reference is not to the historical Herod at all—has nothing to do with the massacre of the Innocents—the reference is to the Herod of the Miracle Play, a blustering ranting character; and the phrase only means "it out-rants the greatest ranter." This we usually are not told. So again, Keats

"She could have ta'en
Achilles by the hair and bent his neck"

does not need a long account of the Trojan War: nor does Gray's
"Some mute inglorious Milton here may rest"

require a life of the great Puritan poet. In the former case, what we have to bring out is the idea of size and strength; in the latter, "Milton" is used as the term for a poet notably neither mute nor inglorious. This mistake runs through a great variety of degrees and is closely akin to that constantly made when dealing with similes—everything is told you *except* what would make the meaning and beauty of the simile clear.

Words and Phrases.—If in our work with our class we meet with a very rare and antiquated word, its meaning, I think, had better be given at once. If there is anything very striking in its derivation, and if this be really to the point, this may perhaps be added. So when little Ellie sends to her warrior lover "a white rosebud for a guerdon," we may explain *guerdon* as a gift for warlike service referring to the French if the children know that language. "Saturnine," a rare word for children, may be made more memorable by a

reference to being born under the planet Saturn, and may be associated with *jovial, mercurial, disaster, &c.* But there is great danger in this matter of derivation, of our trying to teach the unknown by the still more unknown: and of our playing the pedant by affecting knowledge which we either do not possess, or which is not wanted now. Words have a way of out-growing their original meaning, as children do their frocks; and what we want in literature-teaching is not how a word came by the meaning it has now, but what the meaning actually is now and in the passage in question. In such a case the derivation is oftenest a hindrance rather than a help to the learner. The teacher should always think whether the added information will render the meaning now wanted more striking; more memorable. If so, give it; if not, refrain. Often a word, somewhat unusual, may be made clear by grouping it with its near relatives, *if these are in common use*. So the verb "to ban" may be made clearer and easier to remember by associating it with *abandon, bans, banish, baudir*. By comparison we may form a general idea of the meaning common to them all. But oftenest our difficulties arise with words which have one very common meaning, and another not so common. For instance, children must often be puzzled, as I once was, how Gray's flower could "waste its sweetness on the desert air"—*desert* called up in my mind the picture of a vast extent of barren sand, not exactly a place where flowers would grow. But in Pope we find "roses that in *deserts* bloom and die"; Drayton makes a youth feed his flock "upon a *desert* near at hand that lay"; while, again, in *As You Like It*, the Forest of Arden is frequently spoken of as a *desert*. Put these passages and other like ones together, and compare them, and the meaning will soon show itself in a very striking way—that *desert* properly means an unpeopled solitary place, and has nothing necessarily to do with sand. You may clinch the result by introducing *désert, desertion, and to desert*. So we may arrive at the meaning of *all* in

"Altho' the wild March morning I heard the angels call"
by comparing its use here with its use in Gay's

"A damsel lay deplo'ring,
All on a rock reclined,"

his

"All in the downs the fleet was moored,"

and Coleridge's

"All in a hot and copper sky."

Our difficulties with *phrases* are of a somewhat different nature. They arise from our jumping to the conclusion that because we know the meaning of every word in a phrase, therefore we know the meaning of the phrase as a whole—at least we take this for granted in the cases of our pupils. Because we know the meaning of "flattered" and "tears," it does not follow that we, or at any rate that our pupils, fully understand Keats when, in speaking of the Beadsman, he says that music's golden tongue "flattered to tears" this aged man and poor." So again we must not take for granted that our pupils will understand Keats' "Sad spaces of oblivion," his vintage that "castes of simulant mirth"; Gray's "the boast of heraldry," or Tennyson's "a streamer of the northern morn," and his "the full-faced presence of the gods," and the like. We understand "music" and "humanity." Will any one tell me what Wordsworth means by "the music of humanity" in the passage I quoted earlier in my paper? But this brings me into the domain of metaphors, of which I must now speak.

Metaphors and Similes.—A simile is a comparison by means of which anything is illustrated or explained. A metaphor is a condensed simile, or the substitution of an idea which properly applies to one thing for some other idea associated with the first, but which applies to another thing. So the simile in "he checked his anger as one who bridled a horse" is condensed into a metaphor in "he bridled his anger," the idea of *bridling* which applies to a horse being substituted for the associated idea of *checking*, which applies to anger. A metaphor or a simile may aid the understanding, call forth or intensify a feeling, or give an agreeable surprise. As Mr. R. G. Moulton has

said,* the main interest of metaphor, as of all imagery, belongs to the actual association of the two ideas, one of which is substituted for the other—the way in which that association assists the vividness of poetic realization, or appeals, by its newness, quaintness, intrinsic beauty, to the imagination. It is plain that the teacher should be continually conscious of this, and endeavour, by expanding, questioning out, and picturing out the metaphors, to bring their force and beauty home to his pupils. Keats' "nest of woe" where the wounded Titans lie and writhe—which reminds one of Shakspeare's "nest of death" (in *Romeo and Juliet*), and Tennyson's "high nest of penance" (in *St. Simon Stylites*). But it is hardly necessary for me to give examples. The whole language is alive with metaphor, and gains much of its force by this means. Very much of this metaphorical meaning, however, has now become unconscious; and it is only when it is conscious that we can reckon it as a poetic implement. We must therefore be careful to consider how far this is likely to have been the case when the poet in question wrote. For example, *horrid, hideous, secure, &c.*, are almost certain to be metaphorically alive in Milton, and not very likely to be so in Tennyson.

It is even more important for us to pay attention to *similes*, not only because they play so prominent and so varied a part in general speech, and above all in poetry, but because experience tells us that our pupils (like ourselves) are very liable, especially when the simile is pretty in itself, to pass on, content with a very hazy notion as to what the comparison really implies, and so to lose much of the beauty, and not a little of the meaning. Poets themselves sometimes get lost in their own similes, and go on elaborating them without any thought of their original purpose. Keats, and even Milton, do so occasionally. I cannot but think that, even in so simple a case as, "like summer tempest came her tears," it is worth while to pause and ask the children what the most marked characteristic of the coming of a summer tempest is, and how the coming of her tears resembled it. In this matter it would be well for the teacher to make some little study of the uses of similes—in such a book as Bain's "Rhetoric and Composition," for instance; or to specially observe their varying literary purpose in some such master of similes as Homer, Virgil, Spencer, Milton, or Pope. The picture-making simile—as when Milton makes the council-hall in Hell rise like an exhalation, or Satan in Chaos spring upward like a pyramid of fire, or cherubs descend on Eden like evening mist; the expository simile, to help the understanding, as that of scale, when Milton compares Satan to Leviathan, his shield to the moon seen through a telescope, and so on; the simile to help one to realize a difficult idea by bringing in something less strange, not wholly unfamiliar, as when the rebel army on the wing is likened to a flight of locusts, or the colour of the land in Hell to ground left bare by earthquake and singed by subterranean fire; and many another kind. In other words, the teacher should call attention, not only to the meaning of a simile, but also to the particular nature of its use as a literary instrument in the case in question—in no elaborate way, of course, but just so far as to convey a sense of literary art. Try and do without the simile; change it slightly, now in this way, and now in that; compare results: and the true value of the original will soon reveal itself. In any case do not imagine that you can treat a work of art as a work of art by ignoring its art altogether.

Epithets.—It will not be necessary for me to say many words about epithets, partly because they are, as a rule, less neglected than the other points I have referred to, and partly because I should have to say over again what I have already said—question out, picture out, illustrate your epithets. No one is, I suppose, so careless as not to note so striking an epithet as that in Keats' "azure-lidded sleep," which reminds one of Perdita's "violets dim, but sweeter than the lids of Juno's eyes," or that in his "poppied warrath of sleep," which used to delight so keenly my old friend Cotter Morison. The

* In the spring of 1890 Mr. R. G. Moulton delivered an admirable course of lectures on "Milton's Poetic Art" to large audiences in the North of England. In these lectures he treated Milton's similes and metaphors very fully.

quaint, or far-fetched, or highly-coloured epithet we may be sure will attract attention to itself. It is the quiet and subdued epithet of unobtrusive beauty and fitness which so constantly escapes our pupils' observation and our own; and yet, it is in such that so much of the finest fancy and feeling is revealed. I will quote two instances from Tennyson to show you what I mean:—

"Far up the *solitary* morning smote

The peaks of virgin snow."

"Rolling a *slumbrous* sheet of foam below."

Try and set down all that is suggested, and meant to be suggested, by "solitary" and "slumbrous."

A careful study of, and a clear insight into, the matters I have mentioned lie, I feel sure of it, at the very base of a sound study of literature. The haziness of understanding, the confused picturing, the vagueness of appreciation so often to be noticed in minds, not only at school, with regard to what has been written or said, is largely, if not mainly, due to carelessness in these respects. The general meaning is hurriedly snatched at, and minor matters are left to take care of themselves. Such a mode of reading may do well enough for newspapers and railway novels; but when dealing with works of real art, we need the attentive eye, the searching, picture-making mind, and the feeling which responds truly and clearly to the artist's touch, and which therefore helps instead of confusing his meaning. These can only be trained by the habitual exercise of observation and thoughtfulness with regard to those things which the literary artist himself studies, the means which he himself employs to convey to us what he sees and feels and thinks, with regard, viz., to epithets, metaphors, and the rest; by resolutely dealing with the subject-matter (the ideas of the writer), and with the method and material which he makes use of to bring his ideas home to us. Literature-teaching is art-teaching, and should in every way be linked with art, and made intelligible by the principles of art. Let the antiquary and grammarian stand aside.

And now, what about the examiner? Well, to tell you the truth, I have throughout had the examiner in my mind quite as much as the teacher. I cannot conceive of any one being a good examiner who is not, first of all, a good teacher. We often hear it said that the examination should follow the teaching, and not the teaching the examination. I am not quite sure that I understand what this means. It has at times almost the appearance of a teacher's desire to appeal, not to the public and open court, but to that private and secret tribunal where, as Burke says, each one of us is sure of being heard with favour, or where, at worst, the sentence will be only private whipping. It would rather take it to mean that no one can examine well in any subject who cannot also teach well in that subject; that the principles of sound teaching must guide us to the principles of sound examining. It would manifestly deprive an examination of all real value—even when it is an examination of only one school, and when many schools are grouped together the idea would be impossible—if the teacher were to dictate the kind of questions to be asked, and to object to all others. If in English literature, for instance, he were to say, "we have only read the poem through," or, "we have only got up the notes at the end, you must not ask any questions on paraphrasing and metaphors, and the rest." That would not be sound teaching and, therefore, it cannot be sound examining. The only difference I can see between the teacher and the examiner is that the former has to apply his knowledge of his subject to the cases of a limited number of particular individual pupils of a certain age, while the latter has to keep before his mind the general or average pupil of that age. If you only want to find out how much the pupils remember and to place them in an order of merit—that of course can be done, and best, I think, by the teacher himself. But if you want to ascertain whether the school work is proficient, is what it should be, then I think you should go to an outside examiner, or board of examiners. You must allow your examiner, to have a standard to form his judgment by;

and to ensure that this standard is the right one, you should require him to be a good teacher, of sufficiently wide and varied experience in teaching as well as in examining.

This being my view, you will not be surprised at my requiring the examiner in English Literature—as in every other subject—to look into and think over the poem or play on which he is going to set a paper, just as if he were going to use it in teaching; to make clear to himself what are the demands which the poem makes on the reader, and how far the average pupil of the age in question should be able to meet them, with the right kind of help; to consider the poem under the several heads of *subject-matter*, *text*, *paraphrasing*, and the rest, and to decide on the actual and *relative* importance of these in the particular poem, and for pupils of the particular age; to select his passages and his questions accordingly, adding certain alternatives of equal value if the subject be a long one, or he may sometimes make a few questions compulsory for all, and the rest alternative.* He should, of course, bear in mind the time allowed, and wholly abstain from questions which would merely display his own ingenuity and learning. I think that in the case of older examinees he should always take into account—at any rate, in his report—the language and general intelligence of the answers. Just as the various writers differ from one another, so will the importance to be given to particular points differ. You can hardly deal with Milton's *Paradise Lost* without touching upon similes or paraphrase; or with a poem of Tennyson or Keats without referring to the epithets. In Shelley, the subject-matter will not perhaps be so important as the metaphors and the use of language as an instrument of feeling; while, on the other hand, in Wordsworth the ideas and feelings of the poet may often be more valuable than the language itself. In Shakspeare all the points are important—characters most of all; so you must mainly decide what to ask by your knowledge of the average pupil of the given age.

But enough about examinations. My theme is *literature-teaching*; and if you accept my view as to the qualifications of an examiner, you will not find it difficult to make the remaining deductions for yourselves.

THE IMAGINATION OF CHILDREN.†

The faculty of imagination is one of the earliest to show itself, and this is universally true; it is not the peculiarity of one individual child, it is not an accident of childhood nor an ill-habit fallen into by some children: it is nothing less than the warp and woof of the first years of life. Little children are passionately fond of "pretending," "making-believe," "supposing." Watch them at their play, and the force of their imagination and the reality of the make-believe to them is apparent.

I was watching some children at the seaside playing at shop: different kinds of pebbles and sand were carefully selected to serve for the various commodities. Sand took the place of sugar, little pebbles of particular shape and colour were currants, others were plums, and so on. And for the time being there was no question about which were which; to the children the pebbles were as really currants as those bought at a real grocer's. This was shown by the indignation of one of the little shopkeepers when a baby sister, trying to help, put plums in with the currants. The game could not go on; all those plums and currants had to be thrown away and a fresh supply of both obtained. No shopkeeper could sell such mixed fruit!

Notice too how quick of resource little ones are. A chair turned upside down serves for a carriage, a train, a wheelbarrow, and a kennel in turns; a pulpit is quickly improvised from the head of the sofa and a cushion; the hearth-rug pulled into the middle of the

* Alternative questions are really necessary in the case of a long subject, but are sometimes rather troublesome to set. I think they should always be framed that for the purpose in hand they carry equal marks. Also, if several examiners mark the answers to the same question paper, then the marks to be assigned to each question should be decided on beforehand, or the standard will vary considerably.

† A paper read in October, 1890, by Miss C. E. Carpenter (Mistress of Method in the Datchelor Training College) before the Staff and Students-in-Training of the Datchelor Collegiate School, Camberwell.

room serves for a desert island; while the carpet is a deep and treacherous sea, and the child will refuse to leave the island till rescued by a boat. Listen again to the tales they tell one another; the wonderful and impossible elements they introduce; the golden mountains; the dresses woven from diamonds and rubies, the fairy's wand that shines with all the colours of the rainbow, the magic rocks that open at command, the house made of cocoanut-ice with toffee roofs: all this is a delight to the narrator and the audience, the more during the conceits the more they please, and if any one ventures to object to any one item with a disbelieving "He couldn't," how the little one fires up with the quick and scornful retort, "How silly you are!" and even if a little peacemaker suggests "We're only pretending," the little creator objects to his stories being called pretence. To him they are real, more real indeed than the material environment we call real.

All this I hold is a great source of pleasure to the child; these creations form part of children's very existence, and they live for a great part in a world of their own, peopled by imaginary beings, and a world in which little dramas, tragedies and comedies, are being enacted. What a blessing for the children it is so! If they had earlier to encounter the stern realities of life, to find that much of the beauty and love, and tenderness, with which they endow all people and animals, and even flowers and inanimate objects, is non-existent, much of the brightness and freshness of child-life would be gone. To the child introduced into a strange world all things are possible: the childish faith knows no limitations, and all things are probable; he is constantly being surprised by some new aspect of people or nature. He sees the snow fall, these beautiful white glistening feathers were unexpected,—what is to hinder golden flakes next time in the place of silver? The snow that looks so firm and enduring one day has vanished the next,—what is to hinder the house in which he lives from following its example?

Have you ever seen little children at a conjuring entertainment? If so, you will have noticed that they do not show much surprise at the tricks performed. They are quite prepared for it all. It is no more wonderful to them for the conjurer to pull flowers from an empty flowerpot than for the roses to bloom in their own garden. They do not understand the limitations of time and man's power. It is only by a series of experiences, many of them, alas! painful ones, that the child comes to realise what we, in our self-satisfied language, call possible and what impossible. And when the child reaches this stage he may have gained knowledge that will help him in this life, but he has also lost much of the child's simple faith and zest in existence.

From all this we see that this faculty of imagination is a natural gift, and that it is one of the earliest to be developed, and also that it is a fruitful source of pleasure to the child. As teachers we have to do with children endowed with this faculty, and our aim is to make the most and best of the children themselves. "Life," it has been said, "is a bundle of possibilities," and the child comes to us with these possibilities latent or patent. What shall be made of them, whether they shall be nourished and strengthened, or neglected and even repressed, largely depends on the treatment the child receives at the teacher's hand.

In children the imagination is unrestrained by reason, and is more commonly, perhaps more accurately, designated by the word "fancy." By fancy, which is one of the least intellectual forms of imagination, we mean imagination uncontrolled by the will and not destined to serve any definite purpose. We talk about the "play of fancy," and we all know what this means when we indulge in an hour's day-dreaming. It is play, but it is delightful; "all work without play makes Jack a dull boy," and we would rather not yield this power and privilege of day-dreaming, of building castles in the air, for it is not often from this that we draw our inspiration and motive power for matter-of-fact work in a matter-of-fact world?

Turning now to the work of imagination as opposed to the play of fancy, we notice that, psychologically, imagination means far more than it does popularly. It includes not only the creative or constructive faculty, the power to picture new scenes and circumstances, but it also includes the power to call up again impressions already received—a power which is called the *Reproductive Imagination*, or, in common parlance, *Memory*.

"Everything we perceive through the senses makes an impression on us, which impression is stored up in our minds. Now, these impressions are stored up as *images*. That is to say—I see a plant to-day for the first time; there is an exact image of that plant made on the retina of my eye; there is a corresponding image impressed on my mind; the image vanishes from the retina, the image in my mind is retained, and when next I hear the name of that plant, or by any other link of association that plant is brought before me, the image which has been stored up in my mind—it may be for weeks, months, or even years—will be called up again, like the original image, yet probably fainter and less accurate with regard to details.

How accurately these images may be recalled is shown by the following facts. An English painter, whose rapidity of execution was marvellous, explained his mode of work in this way. "When a sitter came, I looked at him attentively for half an hour,

sketching from time to time on the canvas. I wanted no more, I put away my canvas, and took another sitter. When I wished to resume my first portrait, I took the man and set him in the chair, where I saw him as distinctly as if he had been before me in his own proper person—I may almost say, more vividly. I looked from time to time at the imaginary figure, then worked with my pencil, and then referred to the countenance, and so on, just as I should have done had the sitter been there—when I looked at the chair I saw the man. Sometimes I would even dispute with a man whether he had or had not been sitting for me at a particular time." It is only fair to add that this was an abnormal development of the imagination, and the unfortunate painter spent thirty years in a lunatic asylum.

This power of calling up the images of past impressions—not only of sight, but of sound, touch, smell, taste, &c.—as when I recall a tune I have heard, or a sensation of pain, &c.—is, as I have already said, called the *Reproductive Imagination*; or more commonly it is spoken of as *memory*, and it is not my purpose to deal with that to-day. So, with this word of explanation, I will pass on to the *Imagination proper*, or the *Constructive Imagination*, or, as it is sometimes called, the *Creative Faculty*. In this we do more than in reproductive imagination: we not only recall past impressions, but we combine these so as to create a new image. Now, it is this power we are constantly using ourselves, and asking our pupils to use. Let me take a simple illustration to show the processes. You are going to tell a tale to little children about a dragon. The first thing is that they shall have a vivid mental picture of a dragon. You may take one of two courses—you may show them a coloured picture of a dragon; then, putting that aside, tell your story. Here you only call the reproductive imagination into play when you ask the children to think of the dragon. Through their observation they received the image of the dragon, they then call it forth as you talk of it, or they remember it. Or you may adopt another and better method—one, at least, that will give more mental training. You may ask, "Did you ever see a crocodile? Think of the one at the Zoological Gardens. Now I am going to tell you about a new creature, something like that crocodile, only ever so much bigger. If it were in this hall it would reach from the platform to the door at the end, and it is all covered with scales, yellow, and green, and blue, and crimson, that glitter and gleam in the sunshine like gold and silver and jewels. And it has broad wings so that it could fly about like an eagle, and a great tail crackling and rattling as it flies like a driver's whip, and its eyes glare in the twilight like the lamps of the carriage you saw coming along the road last night. Now, can you think of such a creature? That is a *dragon*." What has been done in this case? The images that existed in the child's mind as the result of previous experience have been called forth—the crocodile—the gleaming of gold and silver and jewels—the noise made by the crackling of a whip—the fierce light of carriage lamps in the darkness. All these elements separated from their surroundings have been brought together, and a new creature has been formed. After such a description a vivacious child will really have created a mental picture of the dragon; and this can be proved by asking him to describe the creature, when it will be found that he will use words of his own to describe it; he will not merely repeat the words used by you in your description, but by the phrases he employs you will see that he is really describing a picture existing in his mind, not repeating words he has just heard.

Before such an act of constructive imagination can be performed, it is necessary on the child's part—(1) that he have a store of material. This material is gained through the senses in the act of perception. (2) He must also have the power of bringing this material readily before his mind, or in other words he must have a quick memory, or ready power of reproductive imagination. Again (3), the child must be able to analyse the images he possesses. Thus, in recalling the image of the crocodile he must leave out the attendant circumstance of its being in the water, or his picture will be confused when he thinks of the dragon flying.

On the part of the one making use of the faculty it is necessary that he knows exactly what material the child has, that he does not ask the child to think of anything of which there is no image existing in the mind. Thus, if in imagining the dragon the child had confused (say) the elephant with the crocodile because he had seen the two on the same day, the picture of the dragon he constructed might be more grotesque, but it certainly would not be similar to the picture in your mind.

Again, we must take care that the elements we ask the child to recall are such as he himself has noticed. To do this with any certainty we must put ourselves in the place of children; we must look at things from their point of view, we must notice what they notice, we must feel interest in what interests them. I was struck the other day by the answers given by a class of children to the question, "What did you see when you were at the seaside?" They had seen shells, sand, pebbles, seaweed, rocks, donkeys, spades, and pails, but, according to their own showing, they had not seen the cliffs. These were too large for the little people to notice, they had walked on the cliffs, they had played at the base, but had been unconscious of them as a whole. We must be watchful then, in calling this constructive imagination into play, that we do not introduce elements unknown to children; for one word that fails to call up a clear image in the child's mind muddles and blurs the perfection and distinctness of the result.

Again, we must remember that the only means of communication between our mind and the child's mind is the medium of language. An adult's vocabulary is not only much larger than a child's, but in many cases the same word conveys totally different ideas to the two. We want children to understand our language; we must begin by understanding theirs and teaching them ours. This is a most important condition of clear imagination—a correct and concise use of words. We must accustom children to using words accurately. It is astonishing how small is the vocabulary of children—they are constantly using the word "thing." "What's the use of that thing? Why is that thing there? You know the thing I mean, the little iron thing." To cure this we must give them regular exercise in using words correctly. A good method for doing this is to let them describe some simple picture in their own words, supplementing their words when they are in want.

But while we want language to be used correctly, more than all we want that words and ideas shall never be disconnected. The ideal condition is a number of clear ideas, or, in other words, clear mental pictures or images, each identified with an appropriate name. If this were the case, we should have to complain less often of the tendency of girls to reproduce their lessons in the exact words the teacher used; when we find this we are disheartened, and rightly so, for in too many cases it means that the words have been heard and remembered, but no corresponding idea or image has been called into existence. If, on the other hand, the images formed, the pupils will naturally describe that image in words of their own. It is this kind of memory we want to cultivate—the memory for ideas rather than words. To do this we must see that ideas are received, not words only. We must aim at what Mr. Thring aptly calls "thinking in shape." Let me show you what he means by this: "A friend and colleague of mine was reading, with his little girl of six years old, Campbell's poem of 'Lord Ullin's Daughter.' She was delighted, but puzzled. There were so many persons, and so many movements. The lake and the mountain, the ferry and the road, the pursuers and the pursued got mixed up together and entangled in her poor little mind. Of course her father gave her an elaborate explanation, getting slightly out of temper in tone and word when she still couldn't see it! He did nothing of the sort. Breakfast was just over. The table was crumbly. He took the crumbs. He made one heap stand for the angry father and his company, another for the mountaineers, a thin circle for the lake, a little bit of crust for the boat, two little bits of sugar for the lovers, and all was clear. This little girl took in the whole thing; she thought in shape."

What direct bearing has this faculty of constructive imagination on school-work? In what kind of lessons will it help us; or, looking at the great question from another point of view, what lessons afford scope for the cultivation of this faculty? I doubt whether there is a single class of subject into which the work of the imagination does not enter, both in determining the order in which the subject is to be treated, and the method of treatment in individual lessons.

Take *Geography* for instance. The general order of this study as set forth in geography text-books is from what is called mathematical geography, which deals with the Earth as a whole, its division into zones, the imaginary lines on it of the equator, tropics, meridians of longitude, and parallels of latitude, through physical geography, treated generally, with many definitions, on to the more properly descriptive parts in connection with each continent. I know that among more enlightened teachers this order is not kept to—fortunately for the children it is not—but surely there is something wrong when the text-books still in use are arranged in this order.

Children cannot grasp the idea of the Earth as a whole (who can?); the most they can do is to connect their lessons with the globe, and for the time being identify that with the Earth. It is much wiser to start with the images we know to exist in the child's mind—those of the schoolroom, the playground, the surrounding streets, the river near by, and from these to lead the child to construct images of scenes and places unknown to him. In teaching geographical definitions we have accepted this principle: the child is taught to think in shape—to connect the word island with a sandy heap on a blue board, to learn the meaning of isthmus by seeing the narrow strip of blue board that connects two larger pieces. Such lessons as those given in *Sand Geography* are based on the principle of constructive imagination—the teacher takes the sand, which appeals to the children's sense, and tells them they are to think it is land; while the blue board is to make them think of the sea. When they are put in proper relative position, the child's thoughts are carried from the actual heap of sand to a real country, large enough for people to build houses on, with fields, and cows, and sheep, and children, and schools; and to a real sea, such as they see in their annual trip to the seaside, with boats, and ships, and sandy shore.

In taking the geography of any particular country, it is a far better method to teach the country *naturally*. Thus, rather than teach first the animal productions, then the vegetable, and so on, teach these in position: give a lesson on the Australian bush, describe the vegetation, the trees, flowers, and undergrowth, describe the animals that would be seen in a journey through it, the insects and birds that would be found fitting about among the trees, the song of the birds, and their appearance and names (to do this will a

teacher must be acquainted with good books of travel). Here there is a grand opportunity for a lesson destined to cultivate especially the imagination. Starting from the girl's experience, and making as much use as possible both of concrete and verbal pictures, a vivid image of the region may be built up, which will be more useful and far more interesting than any mere lists of animals, vegetables, &c., even though each of these was well described and illustrated. In the one case the matter is clenching by a natural connection, and the whole is framed in a picturesque setting. In the other, both connection and setting are wanting.

Again, in teaching the rivers, mountains and lakes of a country or continent, one lesson should be given in connexion with each of a purely descriptive nature. Thus, select a typical river, say the Rhine, in teaching Europe: take an imaginary journey down the river with the pupils, make them see the forests on the mountains near its source, the rafts floating down the river with whole families living their lives on them, the different towns that are passed, the Cathedral, the University, the change in the character of the scenery, the romantic beauty of the Middle Rhine, finally the altered and disappointing appearance of the Lower Rhine, and last of all the sad end of the great river, finding its exit into the ocean only as man allows.

In dealing with the Alps, give one lesson on an imaginary ascent of a mountain, bring in all the realistic elements possible—the time taken, the fatigue when the ascent is accomplished, the guides, the ropes, the flowers seen and gathered, the changing temperature, the view when the top is reached. In all this the children's imagination must be active if they are to follow the lesson at all, but above all, the teacher's imagination must have been at work before she comes to her class.

If ever she is to arouse in the minds of her children a vivid picture (a living picture, that is) of the scene she is describing, the first requisite is that she shall have a clear and distinct picture. So many lessons of this sort fail because the teacher has expected that the children will form the picture for themselves, when she has no copy in her own mind. But it is obvious that, as in directing a person how to construct any material piece of work the director must see the end from the beginning, so in leading children to construct or build a mental picture, the teacher must have a corresponding picture clearly in her own mind.

I could enlarge on this subject if time allowed, for I believe that no subject admits such scope for the exercise of the imagination as geography, and the very essence of all good geography-teaching is to give this training in picturing out. Geography-teaching should bring before the child the country he cannot visit: it should make him see with his mind what he cannot see with his natural eye; it should, on a small scale, do for the child what actual travel would do for him. So long as geography remained a subject that remained uninteresting and unprofitable to all except those with very good memories who and to the country as it is; not to a country with a large Zoological Garden full of strange animals, and a great herbarium stocked with unfamiliar plants; but to a country with mountains and valleys, ups and downs, trees and animals, flowers and butterflies, men, women and children, all living their lives and doing their work as we are living and doing ours, however different the ways and means may be.

You will readily see that, on the same lines, *History* affords abundant scope for the training of the imagination. Here we want to bring before our children actions and events separated from us by time and space. We want them to put themselves in the place of their forefathers—to picture the social conditions under which they lived, the difference in dress, the strange homes they had, the exploded theories and customs. In helping children to do this we must remember what they know from personal experience, and must remember too that the existing state of affairs in England to-day is to them of the past, until definitely told that they must project their ideas of that into all pictures others. For this reason our descriptions must begin by being negative—by blotting out that is, from the mental picture we know our pupils have all the elements we do not want, before we introduce the new items. Thus, in describing Ancient Britain to young children, we must tell them there were no railways, no trams, and cabs, and carriages, no large schools, no grand houses such as they live in, no shops and wide streets, and so on. Then, and not till then, is the way open for us to introduce the large forests, the wild beasts, the primitive dress.

In describing battles of a bygone age, we must take the soldier as the child knows him to-day, with brightly coloured uniform and gun, and making this the unit of our description, build up the picture of the appearance of the soldiers then, with their rough clothes and rougher weapons. And if the child is to think in shape, we must do this—it is no mere ornamental addition to our lesson, it is an absolute necessity, if the child is to gain some sort of work out of it. For the same reason it is most helpful, in describing a battle, to draw a diagram, however rough, on the blackboard, using different coloured chalks for the different armies.

We need more illustrations for our history lessons—more concrete illustrations. We need more illustrations of the costumes of a period, of the kinds of houses, ships, weapons, &c. We want facsimiles of our great Charters and other interesting documents. We want models of the great seals, &c. All these will help us to give ideas to our children, to be sure that a word stands for something definite in their minds. It would be most interesting to find out what are the ideas underlying some of the historical phrases we use so aptly and the pupils repeat with such precision!

If we kept before us the fact that the imagination is very active with little children, the kinds of history lessons given to them would take the form of biography lessons—lessons about a man or woman; children can in a measure understand these;—and lessons on historical scenes of outstanding events. We should aim at hanging our children's minds with a series of historical portraits and pictures—with dates attached—and at a later period the connecting links could be supplied. My first introduction to history was learning by heart the names of the English Sovereigns, beginning with William the Conqueror, the date of his accession and death, and the name of his wife and the place at which he was buried.—William the Conqueror, 1066—1087, married Matilda of Flanders, buried at Caen, and so on. Why we should have been troubled with the place of his burial I am unable to understand, although I notice that children are always anxious to know what the king died of. That is another example of the fact that children love to deal with facts, not words—if only we will supply them! I don't say that I have regretted learning the dates of the kings; they have come in useful again and again, as most facts will; but, after all, dates are but good milestones; they have no characteristic of their own and are only valuable as they mark progress.

But I am lingering too long over this part of my subject; let me merely remark that there is no subject of instruction which does not admit of pictorial treatment if we look out for opportunities; even arithmetic, which may appear of all subjects the one least likely to exercise the imagination, may be made in a certain sense picturesque, if sums were given then forms of problems, and the girls are asked to find how many pins were made by 58 people if one could make 4,376, rather than to multiply 4,376 by 53.

The extent to which the constructive imagination can be developed is seen in the case of professional chess-players. One man can play twenty games of chess at a time without seeing the boards. This means, of course, that he starts with an image of twenty chess-boards each having the pieces and pawns in position, but at each of his moves and the moves of his twenty adversaries he has to alter the image, and yet never get these twenty constantly changing images confused. What a Herculean feat of imagination! One who could thus play by reference to the images he had of his boards and pieces thus writes: "I never think of distinguishing between my mental chess-board and the actual one. As far as I am concerned they are one, and I could establish a distinction between them only by an effort of reasoning."

Hitherto I have spoken of the imagination as it manifests itself in the early years of life and in its bearing on some of the most elementary parts of school-work, but what is true of the little child is true of children of older growth; the same methods must be employed with the older pupils, with adaptations. Yet, lest you should think this trivial and belonging more to the nursery than to the schoolroom or to students, let me now ask your attention to another fact—that the imagination has a great and important work to do in life. Whenever we are acquiring knowledge we must to some extent use our imagination; but there are three definite lines on which the imagination—which we are regarding now as a faculty of the adult mind—works. These kinds of imagination are:—

1. The *Artistic Imagination*, in which we include that which enters into all literary and poetical work.
2. The *Practical Imagination*.
3. The *Scientific Imagination*.

With regard to the work of the imagination in all artistic productions, the part this faculty plays is evident: we are struck by the beauty of a picture, sometimes because of its skill in execution—this is the mechanical part of art—more often by the beauty or originality of the idea it represents. The artist presents scenes of every-day life in a new light—he looks on them from a different point of view; he brings the light of his imagination to bear on them, and there is a transformation scene. It is the same with the author, the poet, the dramatist, or the novelist. We were told a few weeks ago the plots of Shakespeare's plays were generally old ones; they had been used again and again by other writers; but Shakespeare brought his genius to bear upon them and turned the common wood and stone into gold. He did not scorn to use the wood and stone; on the contrary, we do not expect a genius to create gold from nothing; we only wonder and admire when he turns the ordinary wood and stone into gold by his imagination.

Is it not the same with novels? Often the story which forms the plot, when analysed into its elements, is found to be commonplace enough—such as is constantly being enacted about us—yet the beauty and charm of it lies in the new light in which we see it, the different angle of vision to which the author conducts us and which he is able first to discover through the guidance of his imagination. Some novels—as, for instance, Rider

Haggard's 'King Solomon's Mines' and 'She'—owe their power on the other hand to the daring of the conceits, where we have not only ordinary actions looked at in an unusual light, but where the characters, the events, the circumstances are all the results of the author's invention or imagination. In the one case the medium through which we view the familiar scenes is changed—the limelight or the mellow-shaded lamp is lighted; in the other the very materials of the scene are new. Perhaps the former, because the more subtle, is the more fascinating in its charm; in both, the imagination is the presiding genius.

The same remarks apply to poetical works: does not the charm of poetry lie in the fact that we are carried out of and above the ordinary walks of life on the wings of imagination? How much pleasure we gain, not only from the stories told, or the characters described, but from the beauty and aptness of the similes and metaphors! It is as though the poet's eye is quicker than ours to detect resemblances, quicker to apply them, and when they are pointed out to us, we, too, experience a thrill—is it because we have had another glance at Truth in her beauty?

Hear what Shakespeare says about Imagination:—

"The lunatic, the lover, and the poet
Are of imagination all compact.
One sees more devils than vast hell can hold;
That is the madman; the lover, all as frantic,
Sees Helen's beauty in a brow of Egypt.
The poet's eye, in a fine frenzy rolling,
Doth glance from heaven to earth, from earth to heaven,
And, as imagination bodies forth
The forms of things unknown, the poet's pen
Turns them to shapes, and gives to airy nothing
A local habitation and a name.
Such tricks hat strong imagination,
That, if it would but apprehend some joy,
It comprehends some bringer of that joy;
Or, in the night, imagining some fear,
How easy is a bush supposed a bear!"

Secondly, the imagination takes a great part in practical invention, in all mechanical contrivances. Those who have invented some new machine, or greatly improved existing ones, have been led to their discoveries by the exercise of their imagination. The well-known story of Watt watching the kettle boiling and the lid rising and falling through the pressure of the steam, illustrates what I mean. He imagined first what would be the effect of this force on a much larger scale, and under different conditions, and from this he was led to various experiments which finally resulted in the invention of the locomotive. And it has been the same in all practical contrivance: the faculty which has too often been locked down upon and despised, as opposed to all practical work, is really a powerful agent in this work.

Lastly, we come to the work of the imagination in Science. On the same lines as in invention we find this faculty working. Thus, Copernicus reached the new theory of the relation of the heavenly bodies to one another by taking a flight of fancy, and imagining himself in the Sun; here he viewed in imagination the heavenly bodies, and, by the aid of astronomical diagrams, discovered the great truth that the Sun is in reality the centre of the universe.

His theory was reached by imagination, but before it could be presented to the world, it had to be verified by further observation and experiment. And this is always the case in scientific discovery: there are three steps in this kind of work, in this mental process—the process which is called Induction. These consist of—(1) the examination of many individuals; (2) the invention of a theory to account for certain phenomena in the cases considered, and (3) the further examination of particulars to test this theory. The second of these steps, which Mill calls "the Inductive Leap," is that in which the imagination acts. It is by the imagination that scientists are able to form a theory: it is by keeping the imagination under the control of observation and reasoning that they are able to test this theory. "The world little knows," says Faraday, "how many of the thoughts and theories which have passed through the mind of a scientific investigator have been crushed in silence and secrecy by his own severe criticism and adverse examination; that in the most successful instances not a tenth of the suggestions, the hopes, the wishes, the preliminary conclusions have been realized."

Take an example. In his voyage round the world, Darwin visited a group of islands some 300 miles from the coast of South America. Here he noted certain striking likenesses between the animals and those of the mainland, and also certain marked differences. The problem was, to account for these. Here his imagination was set to work, and the theory was formed that the resemblances were the result of the migration of the ancestors from the mainland—that is, of a common descent—while the differences had been brought about by modification of the species since the migration. Here was the beginning of his great theory of Evolution, which, after many years of research to test the theory, he presented to the world in 1859.

I hope I have shown now that the imagination has work, and valuable work, to do in all the most important branches of life-work; but if that were all, it is a merely utilitarian value, and therefore (as I hope you will agree with me in thinking) not the highest. I hold that the imagination has still a greater work to do in its reflex influence on ourselves—on our happiness and on our goodness. It is a fruitful source of pleasure to all. Through the imagination we can live in another world: we can create our own world—an ideal world. And, if we keep our judgment and reasoning clear, we shall be all the better for these ideal surroundings. Ideals appeal to the heart, not the head; and after all, it is not by the heart we are led, from the heart that we get the motives for life? Again, the imagination has a great influence on the feelings: a powerful, active imagination is one of the requisites of a sympathetic nature. It is only as we can imagine the feeling of others, can put ourselves into their places, that we can really feel for, or sympathise with them.

There is a danger lest teachers in educating the intellect should leave out of account the emotions; and in the case of women, especially, this is a great danger. We are proverbially guided by our hearts, and it is better that it should be so. Let us hold to this womanly instinct—let us nourish our own imaginations on the purest and best food we can procure, and let us look to it that our pupils have the same opportunities. We can do this in several ways: by helping them in the choice of books—both in having a good library in connexion with the school, and, in these days of free libraries, recommending good books to them. We can do it by making their surroundings more picturesque, by arousing their interest in art, and their taste for good pictures. The influence of these is great. "Who would not try to be a good woman, who had such a child as that?" was the spontaneous utterance of a woman of the artisan class, after gazing intently at one of Murillo's pictures of the Virgin and infant Christ.

Again, it has been said that "none are more indulgent towards their fellows, none assimilate more readily with persons and modes new to them, none walk about the world with a broader preparation of comprehensive charity, none are so free from petty jealousies and sour evil surmises, none so exempt from prejudices, as those who have a ready imagination, a quick eye to catch the dramatic and picturesque in human character, and whose imagination teems with whatever of this sort may be furnished by travel and converse with the world, or by history and antiquarian lore."

I have said nothing about restraining the imagination, because I think enough has been said and written on this point; and while I acknowledge that in the case of a few dreamy, onerous children repression may be necessary, I incline rather to the belief that in the case of most people it is far more necessary to insist on the value of this faculty, and on the right of all to gain pleasure from it.

In conclusion, listen to what Richard Jefferies, speaking through the ears of wheat resting in the summer wind, says:—

"You will not touch the flowers, or go into the sunshine, and you will teach your children—hum, hum—to follow in some foolish course; and all the work and labour and thinking and reading and learning that your people do ends in nothing—not even one flower. For hundreds and hundreds of years now the wheat every year has been sorrowful for your people, because the flowers go, and the swallows go, the old, old oaks go; and if your people do not gather the flowers now, and watch the swallows, and listen to the blackbirds whistling, they will never pick any flowers, nor hear any birds' songs. They think they will: they think that when they have toiled and worked a long time, almost all their lives, then they will come to the flowers and the birds, and be joyful in the sunshine. But no, it will not be so; for then they will be old themselves, and their ears dull, and their eyes dim, so that the birds will sound a great distance off, and the flowers will not seem bright."

THE NATURE AND AIMS OF EDUCATION.

A Lecture delivered before the Wilson College Literary and Scientific Society, Bombay, by Mrs. PECHY Phipson, M.D., on 24th March 1890.

(Concluded from page 236.)

III. The training of the Moral Nature is before all a matter of early education. In no direction has education to begin so early to be successful and especially in the matter of truthfulness. How difficult to eradicate a habit of untruthfulness contracted at the dawn of intellect! I have had no time, when speaking of the education of the intellect, to point out the necessity of beginning with principles and leading up to rules. In moral training this is still more important. A set of rules like those of an etiquette book on the manners of polite society is likely to fail you much as the proverbial traveller's phrase book when it comes to a case in point. Just as the only safeguard in matters of good manners

lies in being at heart a lady or gentleman, so the only certainty of doing right follows upon acting upon broad principles rather than seeking for rules upon every case. Let me give you for your motto in this respect a sentence from Kant's Ethics which struck me very much when I was a girl.—"So act that your principle of action might be made a law for the whole world." Broad principles of Truth, Honesty and Unselfishness are unfailing guides which enable a man to steer a straight course when rules of casuistry would make him run foul of many a rock and quicksand. Unprincipled as far as these are concerned the man will wreck not only his own moral nature but will do his share as an individual towards wrecking the bark of State, whose only security lies in being manned by those who are one in working in the common interest of guiding the ship into safe waters.

And now as to the aim and object of Education. Probably many of you will think to yourselves "Why of course the object of education is to fit a man to make his way in the world and to become rich." This is certainly the commonly received idea and that upon which men act. And the consequence is that a very small proportion of the community get any education at all. To begin with, a full half the population, viz. women, has always been jealously excluded as far as possible from all the advantages of learning. The idea has been that education is needed for litigating purposes and to help a man to cure those diseases which men's ignorance bring upon them, but that no education is required to bring them up to avoid quarrelling and to instil into their minds when young those habits and those elementary principles of sanitation which will save them from disease. So men consider it a waste of money to spend anything upon their daughters' education: "she will never make any use of it," they say, the only useful commodity to their minds being money. This accumulation of wealth is the great pursuit of man all the world over, some seek it as a stepping-stone to power, others as a means of surrounding themselves with all that adds to their pleasure and comfort, others again in the pursuit of wealth become so absorbed in the actual process of accumulation, of adding pie to pie and anna to anna, that this becomes their sole life's work to the exclusion of all the pure pleasures of life, and you have the melancholy spectacle of a man who, as the saying goes, "piling in wealth, living in a condition of dirt and mean squalor which no man who has raised himself above the level of the brutes should tolerate, leading a life which is put to shame by the very creatures at his door a life which is a curse to himself and his family and utterly useless for his fellowmen."

Another great class has from time immemorial been excluded from the advantages of education, viz. the artisan and what is called the lower class, i.e. all hand-workers. You may hear people say "What is the good of educating these people above their level. You will only make them discontented," that is, discontented with being the speaker's humble slaves. Sometimes whisperings of such sentiments come to us from such an august body even as the Bombay Corporation when the question of educating the people crops up. The idea of an educated coolie is one that would probably bring a smile of ridicule to the face of most people. The coolie! Why all the intelligence he needs is just so much above that of the horse to enable him to understand where to deposit his burden. That he has without any education. Why put more ideas into his head? Why

"Put a thought beneath his rags
To enoble the life's struggle."

You see the same idea runs all through, that the object of education is simply and solely to teach a man what he will require in his capacity of bread-winner and money-maker. And see how one-sided such an idea tends to make all education. Even those who are destined for what are called the learned professions often receive such a one-sided training, money-making in that one direction being the sole object in view, that they cannot be regarded as truly educated men, whilst on the other hand men following what is considered a far inferior calling may be vastly their superiors in this respect. For instance, amongst the intelligent mill-hands of Lancashire and Yorkshire are to be found men

and women who, when their work is laid aside, can converse with the greatest ease and pleasure upon topics of interest in science, literature and politics, who think carefully and reason accurately. "Such I have been proud to number amongst my friends. On the other hand I have sometimes met professional men who in their leisure moments had nothing but little-tattle and gossip with which to regale their friends, their thoughts appeared to be very flighty and their judgment very censorious. They had in the true sense no right to be considered educated men."

But what is it to impress upon you is that a man's bread-winning calling is not his life nor should it absorb his whole life, and that learning a trade or profession is a very small part of an individual's education. In the hurly-burly of modern life, with competition so keen in every line that a man who is not ever on the alert is apt to lose his chance of making a living altogether, with a striving after wealth as the one desirable object carrying with it an estimation of individuals according to their possessions, it is very difficult for a man to be allowed a part at all in the struggle unless he vies with his fellows in devoting all his life to it. And yet it comes to pass that the man's whole time and energies are given up in feverish anxiety and excitement to his money-making business, he has no time for aught else, no time to think even of matters of the highest importance to all men, the greatest human interests have to be neglected and he becomes practically an automaton always doing one kind of work like a machine. Every now and again there are men who revolt from this state of things, who break loose and pursue their own way and think their own thoughts, and, as in every great reaction, they are apt to be led just as far in the opposite direction. Such a man in modern life was the American Thoreau. To him it was intolerable that his whole time should be consumed and all his fine talents devoted to the one question of eating and drinking and clothing. He determined to break out from the ordinary methods of living and by simplifying his wants as much as possible to give himself leisure for study and thought. For this purpose he retired from the town and, building a rude hut, he embarked himself by the very simplest means. "For more than two years," he says in the interesting account he gives of himself in *Walden*, "I maintained myself solely by the labor of my hands, and I found that, by working about six weeks in the year, I could meet all the expenses of living. The whole of my winters, as well as most of my summers, I had free and clear for study." I do not suggest that you should imitate Thoreau's example closely. He was driven to the opposite extreme by the violent reaction in his mind against the incessant toil he saw around him to accomplish a very small end. But if you have time to read his principal book, *Walden*, you will find there many grains of pure gold, sentences which, as he himself said of others, "are concentrated and nutty, sentences which suggest far more than they say; which have an atmosphere about them, which do not report an old but make a new impression. * * * sentences which are expressive, towards which so many volumes, so much life went; which lie like boulders on the page up and down, or across; which contain the seed of other sentences, not mere repetition, but creation; and which a man might sell his ground or cattle to buy."

And if not so extreme in their views as Thoreau you will still find that, like him, most of the men who have added greatly to the happiness and well-being of mankind have done so by restricting their wants into a very modest compass so as to enjoy the leisure needful for thought. Truly "a man's life consisteth not in the abundance of the things which he possesseth." Meat and raiment are not the ends of existence nor the sole objects of education.

But some strive not for wealth but for fame, "that last infirmity of noble minds." For this they "scorn delights and live laborious days," that they may rise above their fellows, gain applause in their lifetime and perhaps be famous to posterity. Let me assure such in the words of the Poet Wordsworth that

153
297
Wisdom doth live with children round her knees:
Books, leisure, perfect freedom, and the talk
Man holds with week-day man in the hourly walk
Of the mind's business: these are the degrees
By which true sway doth mount; this is the stalk
True power doth grow on; and her rights are these."

Not the acquisition of wealth then, nor of fame, the lot of the few, should be the aim of education, but the development of each individual mind to the fullest possible extent. To make of each man the best and highest of which his nature is capable, not a good carpenter or doctor or lawyer but a good man all round, physically, intellectually and morally; and when that is done it does not very much matter what calling he pursues, whether he is a door-keeper or a doctor, a ryot or a rajah, so long as neither the cares of this world nor the deceitfulness of riches take off his attention from the main object of life, the constant soaring after mental and moral perfection. This is the first great aim of education and the other follows from it and implies it, and that is to make of each individual a good citizen. That state I need not say will be nearest perfection whose subjects are each and all educated individuals, those men and women who realize most their duties as citizens will be the first to study self-improvement. A man's first duty to his country is to strive after the highest possible pitch of excellence, to educate himself and his children. You may sometimes come across fussy philanthropists who spend their days in trying to improve other people instead of themselves, who are loud in proclaiming the duties of the community, forgetting that if they themselves set an example of doing their own duty the first step would at once be taken in the right direction. The really good citizen thinks not so much of the duties of the State towards him as of his duties towards the State. Instead of employing all his time in the pursuit of selfish aims, pitting his interests against those of the community, his first thought will be how he can best increase the general sum of happiness for others. In that he finds his own happiness, not in accumulating wealth to the exclusion of others from its benefits. He knows that what a State needs to be truly great is not exceptional genius here and there but a high level of excellence in all its citizens, and towards this end he does his part in his own family. This man will have a true estimate of the worth of education and of its value in the State, and instead of wishing to keep it as the appanage of one class his great desire will be to flood the whole place with the light of knowledge that the darkness of ignorance may be dispelled; he will do his part to bring about that ideal state of things in which selfish interests will be subordinated to the interests of the community, when the pleasures of life will be accessible to all and will consist in high thinking not in high living, and the dangers which lurk in every so-called civilized country from the presence of a densely ignorant poverty side by side with an almost equally ignorant and selfish wealth will find no place in a state composed of men and women who, whatever their calling, have this in common that they are all striving towards the highest ideal for themselves and their country.

* * * * *

When we wish to express our opinion that an individual has reached a very high point of education we speak of him as a man of culture. By this we mean, I take it, that the individual in question has had an all-round education, carried on with unusual care instead of having been trained solely with the view of making money by the pursuit of one kind of work; that all the senses and the faculties have been educated. You know what is meant by horticulture. The horticulturist first selects and prepares the best soil for the flower seed; he places it under the most favorable conditions; as the shoot appears above the ground he redoubles his care, protecting the tender plant from excess of wind, of sun or of cold; he destroys any insects or animals which are injurious and which might devour or light his seedling, waters it carefully, and as it grows up he prunes it, checking an

excessive growth in any one direction, nipping excrescences in the bud, so that the plant may grow to vigorous perfection, may charm by its beautiful proportions and by the magnificence of its crowning glory the flower. All this is done in the nursery garden: it is there the horticulturist gives to the objects of his care that bent in the right direction which enables them, when assigned their future place in life, to continue on the same lines. It is just the same with human seedlings: *their culture must begin in the nursery.* I never myself met a cultured man or woman with whom this had not been the case. Clever people you may meet, men who have studied hard and who have accomplished much, who have yet had a rough and uneducated home, but the delicate refinements of intellectual and moral graces, that apparently intuitive selection of what is best in art and literature, that still more astounding faculty in a censorious world of seeing first and chiefly what is good in the characters and actions of those around him belong only to the cultured man. Most of all are the results of early training seen in a man's moral nature. It is in infancy and childhood that the direction of growth is given not only to the intellect but to the moral sense, and those qualities of mind, such as sympathy and tact, which are usually regarded as spontaneous growths peculiar to the individuals in whom they are manifested are in reality in great part due to the pains taken by a parent in the child's early development. How important then that parents should bestow at least as much care upon their children as the gardener does upon his seedlings, that they should see that the young mind should come in contact through the senses with what is good and true and pure alone, that the intellect should be presented with that pabulum which will best suit its natural development and that, both in the intellectual as in the moral training, principles should form the foundation upon which the superstructure is raised. As easy to transform the warped and crooked tree which has struggled up through every disadvantage of barren soil, of blasting wind, of rotting damp, into the beautiful wide-spreading fruit-bearing ornament of the pleasant plain, as to change the whole bent of mind, to eradicate the evil propensities, to stunt the bad habits, to train the untutored intellect of a man whose childhood has been neglected and uncared for in the midst of evil surroundings. True it is that the foundations of intellectual and moral education are laid in the nursery and that for that higher culture especially the mother is chiefly responsible. A striking recognition of this fact was given by Dr. Hopkinson, one of those who this year attained the high distinction of gaining the medals of the Royal Society. In returning thanks for the medallists he said: "Speaking for myself, looking back, I have been fortunate in my surroundings. My father cultivated in me a taste for science from a time before I can remember, my mother gave me the first systematic instruction of which I have any recollections." I am sure I need not tell you that all that I have said about education has been intended to apply to girls as well as boys. The most important question for a State is the education of its girls. Educate them and the education of boys follows as a matter of course. Hitherto all States have run on wrong lines. Men, afraid of losing their boasted supremacy, have shut out women from all but the veriest modicum of learning; "they have taken away the key of knowledge; they have entered not in themselves, and them that were entering in they hindered." For into true knowledge and wisdom men cannot enter without women. Just as a sickly mother will have weakly children, so a stupid ignorant mother will have stupid ignorant children, ill-taught and ill-trained, and a bad mother will let loose upon the community men and women in whom all the evil tendencies of human nature have been allowed to spring up unchecked. In the ideal State there will be true friendship between men and women, the despotism and servility of barbaric times, the patronizing condescension and "feminine tact" of modern times will have given place to the frank equality of a friendship which has its foundations deep-laid in common interests and common aspirations, not for self but for the common weal, and from which the selfishness which disputes over questions of superiority and inferiority is forever banished.

GOVERNMENT ORDER ON THE REPORT ON PUBLIC INSTRUCTION FOR 1889-90.

(Concluded from page 254.)

8. *Primary Education.*—Reference has already been made in paragraph 3 of this review to the progress of Primary education, in which the numerical advance was large, as will be seen from the following statement:—

Classes.	Number of pupils on the 31st March 1889.			Number of pupils on the 31st March 1890.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Upper Primary	24,039	3,157	27,196	24,511	3,240	27,751
Lower do.	363,247	61,855	425,102	382,601	66,467	449,068
Total	387,286	65,012	452,298	407,112	69,707	476,819

These figures, which refer to public institutions only and include statistics of primary classes in Secondary schools, show that the total number of Primary pupils advanced during the year by 5.4 per cent., the increase being particularly marked in the case of girls (7.2 per cent.) and of Lower Primary pupils generally (5.6 per cent.). In the next statement appear the results of the various examinations forming tests of Primary education so far as relates to boys, the standard examinations for girls being reserved for consideration under the head of female education:—

Examination.	1888-89.		1889-90.	
	Number presented.	Percentage passed.	Number presented.	Percentage passed.
Primary School	...	...	6,480	67.0
Standard IV	10,451	64.5	10,532	64.5
Do. III	28,800	66.2	30,704	67.2
Do. II	43,950	69.9	47,331	70.1
Do. I	59,546	68.6	64,024	72.4
Infant Standard	37,314	79.6	41,989	79.1

The Primary School examination, which was held for the first time in 1889-90, has been dealt with separately in the review upon the report of the Commissioner for Uncovenanted Civil Service Examinations, and it is unnecessary therefore to refer farther to it. It is, however, observed that the figures now supplied indicate considerable inaccuracy in the statistics of success in this examination first received; for example, in the Commissioner's report the number of pupil candidates was shown as 5,304 and the number successful as 3,340, but the former figure is now raised by 42 and the latter by 202—variations which cannot be due, as the Director suggests that they are, to the mere incompleteness of the previous returns.

On the whole, the results of the Primary Standard examinations may be regarded as satisfactory, for there was in every case an increase in the number of pupils presented, and in all but the Fourth and Infant standards an advance in the percentage passed. With reference to this last-mentioned standard, the Director observes that no improvement can be looked for until a pass is insisted upon in all the compulsory subjects; it is presumed that Mr. Grigg, if he considers that Chapter III of the Grant-in-Aid Code requires amendment in this respect will address Government further on the subject. From the table given in paragraph 114 of the report, it appears that in only one district there was less than 10 per cent. of the male population under instruction, and the Director's remark in paragraph 115 to the effect that there were ten districts so situated seems therefore to be incorrect.

9. *Training of Teachers.*—The number of students receiving instruction in training schools for masters rose from 1,419 in 1888-89 to 1,215, but the strength of similar institutions for mistresses dropped from 331 to 289; the decline is explained by the Director to be merely nominal and to have arisen from the exclusion in 1889-90 of pupils of the Sarah Tucker Training Institution at Palamcottah, who were receiving a general education only and who previously had been erroneously included amongst normal scholars proper. With regard to the extent to which trained are

replacing untrained teachers, a comparison is instituted in the following statement between 1889-90 and 1885-86, which shows the progress made in this direction during the last four years:—

Public Institutions.	Percentage of total number of teachers.							
	From Europe or America or educated there.		Holding L. T. degree or Normal or Ordinary certificates.		Holding General Education certificates.		Holding no certificate whatever.	
	1885-86.	1889-90.	1885-86.	1889-90.	1885-86.	1889-90.	1885-86.	1889-90.
Arts Colleges ...	24.4	24.3	20.9	24.0	49.0	58.8	15.7	12.9
Secondary Schools for boys ...	3.4	1.0	28.4	37.3	45.5	46.8	18.7	14.9
Secondary Schools for girls ...	11.8	3.8	30.5	49.9	29.7	22.5	28.0	23.5
Primary Schools for boys ...	1	0	16.0	21.8	9.6	9.6	74.3	68.6
Primary Schools for girls ...	2.0	0	20.4	30.9	22.2	19.1	55.4	50.0
Normal Schools (male and female) ...	11.5	3.2	65.5	76.9	18.0	12.8	5.0	7.1

These figures must be regarded as evidencing a satisfactory advance, inasmuch as they show that the number of teachers holding degrees in teaching or possessing Normal or Ordinary certificates has been increasing *pari passu* with a diminution in the number holding merely General Education certificates or holding no certificates whatever. Considering, however, the importance of a large element of European professors, it is less satisfactory to observe that in all classes of institutions except Arts Colleges they bore in 1889-90 a much smaller proportion to the total than was the case in 1885-86. The Government fully concurs with the views expressed by the Director in paragraph 130 of his report, and considers that the teaching staff of the normal schools generally is much below what it should be in educational attainments. The Teachers' College at Saitāpet and other institutions have been at work for some time and there ought to be no deficiency in the supply of trained teachers provided suitable salaries are offered. The limited funds at the disposal of the Local Boards and Municipal Councils, however, render the provision of efficient establishments a matter of difficulty, and the question of transferring all normal institutions to the charge of the State is receiving the consideration of Government. The extent to which the students in these schools have to devote time to general instruction is a serious evil.

The observations appearing in paragraph 130 of the report in regard to the necessity of obtaining men of at least the F.A. standard for the post of head masters of normal schools will be considered in the Local and Municipal Department. It is to be observed that less than half the teachers in Government normal schools for masters had themselves been trained in *bona fide* normal schools, and that two such teachers had no certificates whatever. Under these circumstances it is not unnatural that insufficiently trained teachers should be the rule in Board normal institutions.

10. *Technical Education.*—The growth in the strength of industrial classes in schools for general education has been very rapid, but no such marked tendency to increase has been shown by industrial schools proper during the last few years, as appears from the figures given below:—

Institutions.	Number of pupils.			
	1886-87.	1887-88.	1888-89.	1889-90.
Industrial schools proper ...	692	640	739	739
Industrial classes ...	24	296	689	1,019
Total ...	167	936	1,428	1,758

It is to be feared that technical classes are too often opened without due consideration and without proper provision for efficient instruction, and that the effect of

this and of the want of any real interest on the part of those managing them is that after a brief existence they languish. The sudden increase of such classes cannot therefore as yet be safely viewed as correctly gauging the growth in the demand for technical instruction, and it is not likely that these classes advance rapidly for some time to come, inasmuch as the Government has now distinctly laid down that the expenditure of local bodies should be concentrated on general primary education. The number of teachers in industrial schools who hold no certificates is very large, but this is natural in view of the recent introduction of technical education, and no considerable immediate improvement in this direction can be looked for. Articles of an approximate value of Rs. 35,622 are said to have been turned out by the various institutions and classes during the year, but it is not clear whether this figure presents the amount received for articles actually sold; it is observed that in the report for 1888-89 the approximate value of the output and the amount realized are shown as identical. The above sum of Rs. 35,622 is less than the amount realized in the preceding year by Rs. 850, but this is not a matter of consequence, for the tendency to regard technical schools rather as workshops than as training institutions is, as remarked by the Director, one to be deprecated. In some cases, however, the decline in output is so large as to suggest decreasing vigor; for example, in the case of the S. P. G. Industrial School, Ramnoid, where the value of the work turned out dropped from Rs. 6,283 in 1888-89 to Rs. 2,120 in the year under review; the fall has not been explained, and the Government is not aware of the grounds upon which the Director regards the progress of this school as satisfactory.

11. *Female Education.*—A comparison with the figures for 1889-90 bears ample testimony to the rapidity with which female education has been advancing, for it shows that, while all pupils taken together have increased by 57.7 per cent., the corresponding figure in the case of girls is no less than 142 per cent.

To a certain extent the general advance is doubtless due to an increase in public at the expense of private institutions and improved registration in regard to the latter, but the real advance must have been very large; the number under instruction in all classes of institutions, 78,344, is still, however, the merest fraction of the female population of school-going age. The large numerical increase above alluded to is gratifying, but a comparison between 1889-90 and 1885-86 in respect of the stages of instruction reached by the girls shows results similar to those noticed in the case of boys:—

Stage.	Percentage of total.	
	1885-86.	1889-90.
High ...	2	3
Middle ...	3.2	3.0
Upper Primary ...	4.9	4.5
Lower Primary {	(a) Reading printed books	68.6
	(b) Not reading printed books	21.1
		61.6
		30.6

The results obtained by girls in the various examinations during 1888-90 are compared in the following table with the corresponding figures for the preceding year:—

Examination.	Appeared.		Percentage passed.	
	1888-89.	1889-90.	1888-89.	1889-90.
Matriculation ...	34	36	56	44
Higher Examination for Women ...	234	233	68	68
Middle School ...	369	378	73	80
Standard VII ...	18	45	67	67
Do. VI ...	157	134	82	82
Do. V ...	346	477	72	72
	*1887-88		*1887-88	
Do. IV ...	1,743	1,372	65	65
Do. III ...	2,939	3,032	72	71
Do. II ...	4,893	4,988	71	71
Do. I ...	7,905	9,316	68	68
Infant Standard ...	8,579	9,471	76	76

* The figures for 1888-89 are incomplete.

The Director is pleased to appoint M.R.Ry. T. J. Venkatachala Aiyar, First Assistant of the Victoria College, Palghat, to be temporary additional Assistant in the Presidency College on a salary of Rs. 125 per mensem.

The Chairman, Municipal Council, Palghat, will be requested to instruct Venkatachala Aiyar to join the Presidency College *at once*.—Pro No. 4189 of 22nd April 1891.

The Director is pleased to make the following appointments:—

M.R.Ry. C. N. Subramania Aiyar, Sub-Assistant Inspector of Schools, Saidápet Range, to act as Sub-Assistant Inspector of Schools, Madras Range, during the employment of M.R.Ry. C. V. Kachayya on other duty or until further orders.

M.R.Ry. K. Srinivasula Nayudu, Sub Assistant Inspector of Schools, Vizagapatam Range, to act in the Saidápet Range *vice* M.R.Ry. C. N. Subramania Aiyar on other duty or until further orders.

2. The Inspector of Schools, Northern Circle, is requested to nominate a competent candidate to act for M.R.Ry. Srinivasulu Nayudu in the Vizagapatam Range.—Pro. No. 4484 of 22nd April 1891.

The Director is pleased to make the following transfers:—

(1) M.R.Ry. M. Singaravelu Mudaliar, Sub-Assistant Inspector of Schools, Tindivanam Range, to be Sub-Assistant Inspector of Schools, Vriddhachalam Range.

(2) M.R.Ry. P. S. Venkátapathi Aiyar, Sub-Assistant Inspector of Schools, Vriddhachalam Range, to be Sub-Assistant Inspector of Schools, Tindivanam Range.

The above transfers are to have effect from the 1st June next.—Pro. No. 5432 of 12th May 1891.

List of Subscriptions received by the Superintendent, L. A. Press, Madras, on account of the "Journal of Education," from

1st to 31st May 1891.

		RS. A. P.
Mr. T. Ruthnasawmy Nadar, Madras	for 1890	4 8 0
Head Master, Board Middle School, Arni	April 1890 to March 1891	4 8 0
Do. High School, Guntur	for 1891	4 8 0
Rev. J. Cooling, Rayapettah	do.	4 8 0
Head Master, Yeomiah's School, Arcot	do.	4 8 0
Supt. of Stationery, Calcutta	August 1890 to July 1891	22 8 0
Mr. K. Berlie, Civil Female Orphan Asylum, Egmore	for 1891	4 8 0
J. H. Bullivant, Esq., Madras	do.	4 8 0
B. Lavery Esq., Kilpauk	do.	4 8 0
Mr. P. V. Sundarasa Sastry, B.A., Trichy	do.	4 8 0
Rev. A. A. Williams, Trichy	do.	4 8 0
Mr. K. S. Srinivasa Iyengar, Coimbatore	do.	4 8 0
Mr. M. Brown, Secunderabad	May to October 1891	2 8 0
Mr. S. Gnanamoothoo, B.A., Chingleput	January to April 1891	1 8 0
Chairman, Municipal Council, Adoni	for 1891	4 8 0
Mr. J. Guranadha Sastry, Ellora	do.	4 8 0
Rev. A. Brasche, Udipi	do.	4 8 0
Agentleman	for May, 1891	1 0 0
E. Nailer, Esq., Tranquebar	for 1891	4 8 0
Hon. J. Grose, Madras	do.	4 8 0
H. J. Bhabha, Esq., Bangalore	for 1891	200 0 0
President, District Board, Tanjore	April 1891 to March 1892	4 8 0
Do. do. N. Arcot, Chittoor	for 1891	4 8 0
Chief Secy. to Govt., Financial Dept., Madras	do.	384 0 0
A Hindu,	April 1891	0 8 0
	Rupees...	693 0 0



157

The

Journal of Education

Madras

Vol. V.]

JULY 1891.

[No. 7.]

CHANGE OF EDITORSHIP.

We beg to call the attention of our Readers to the fact that Mr. C. M. Barrow, M.A., has severed his connection with this Journal as its Proprietor and Editor. Under his able guidance the Journal has been kept well above water during the last few years, and its success as the leading Educational Journal in India is now assured. We have undertaken the duties of Editor not without much diffidence, and with a full sense of the responsibilities which those duties will involve. We are resolved to spare no effort to render the Journal as efficient as possible, and to make it a worthy exponent of the educational life of this Presidency; and we shall endeavour to make it serve none but the highest purposes. While devoting most of its pages to matter of special interest to this Presidency, we shall at the same time endeavour to keep our Readers well in touch with the educational doings of the civilised world in general. For this purpose we shall attempt to enlist the sympathy and active co-operation of friends to Education in England and elsewhere. But in the main we shall have to depend upon friends nearer home for sympathy and support. There are

On the whole it cannot be said that there was any very marked improvement in the results of the examinations above the fourth standard as compared with 1888-89 nor in the results of the Primary standards as compared with 1887-88. It is observed that the Director speaks of an advance in the percentage of passes in the sixth standard, but this appears to be a mistake, as the proportion of success dropped from 84 per cent. in 1888-89 to 82 per cent., and the only standards in which the table shows any advance are the Infant, Second and Seventh.

12. *Muhammadans*.—As already remarked, the report presents some satisfactory features in respect of the education of Muhammadans, although these are to a great extent obscured by the large decline which has occurred during the last few years in the number of boys of this community reading in arts colleges and secondary schools. Statistics for the last two years appear in the following table, in which pupils in primary departments of secondary schools appear against "Primary schools":—

Institutions.	1888-89.	1889-90.
Colleges	59	46
Secondary Schools	1,465	1,362
Primary	41,640	48,227
Training	84	119
Special	242	248
Private	9,983	25,198

The extension of the comparison to previous years gives results the same as those indicated by the above figures, namely, an increase in the number of primary and private pupils and a decline in the pupils at higher stages of education. The statistics available show that the number of pupils studying in private institutions was more than ten times larger in 1889-90 than in 1886-87. This immense increase is of course mainly due to improved registration, but the figures for Primary public institutions are hopeful and seem to indicate an improvement which is due not merely to the extension of recognition and aid, inasmuch as the average strength of these schools has risen. The decline in the case of secondary schools has been noticeable for some years, but no explanation is tendered and it must be regarded as most discouraging considering the constant efforts made to raise the educational status of Muhammadans.

13. *Physical education* appears to be progressing satisfactorily and to have taken a hold which will lead to its speedy development.

PROCEEDINGS OF THE DIRECTOR OF PUBLIC INSTRUCTION.

Ruling under Article 6, Section VII, of the Inspection Code. The sanction of his immediate superior is not required by a Sub-Assistant Inspector to attend the meeting of the Taluk Board to which his Range belongs even though the place of meeting is outside his Range, but a Sub-Assistant Inspector may not attend a meeting of a District Board, at a place beyond his Range, without the sanction of the Inspector of the Circle, if such attendance involves extra expenses to Government on account of Travelling. If no such extra expense is involved the permission of the Assistant Inspector only need be obtained.—*Pro. No. 5738 of 20th May 1891.*

Home Education Classes of the National Indian Association, Madras.—These classes were attended by 36 Hindu girls, of whom no less than 15 came of the richer families, and the rest belonged to the middle classes. The withdrawal of the only Muhammadan girl is noted with much regret and is not reconcilable with the gradual advance of education among the members of this community. The number of admissions and withdrawals was large.

Four trained mistresses were employed by the Association for the supervision and instruction of these classes. The work done by them was very fair.

Eight students appeared for the Third Standard examination, of whom seven passed, which is very creditable. These should be encouraged to continue their studies. No less than 13 students were not examined. No explanation has been furnished on the point.

The Director notes with pleasure that the students have begun to take a lively interest in general reading and that they subscribed for the current newspapers and journals. A larger number kept their household accounts than before, and a great improvement was noted in the fancy needlework executed by them.

The general condition of the classes as a whole reflects great credit on the agencies concerned. Strenuous efforts should continue to be made to extend the work. The Inspectress should ascertain whether the introduction of drawing and singing, as subjects of instruction, would be acceptable to the parents of the pupils, and, if so, the Association will be encouraged by means of a liberal help from Government to afford facilities for instruction in these branches of knowledge. Such a measure is calculated to popularize home education.—*Pro. No. 4233 of 18th April 1891.*

Podanur and Salem Railway Schools.—The First-grade Middle school at Podanur is next to Perambur, the largest institution on the Madras Railway line. It contained 74 pupils at the time of inspection showing an increase of nine pupils over the figure of the previous year. Two of the classes had, however, only an attendance of two and three pupils. Three teachers can hardly be expected to manage efficiently eight classes. An additional teacher should therefore be employed soon and the services of a pupil-teacher should be secured temporarily. The First Assistant should be required to qualify herself for a Normal certificate. The results of the Grant examination were very satisfactory. A copy of Webster's Large Illustrated Dictionary, Fowler's Method, and Educational Calendar and Directory should be supplied. The *Journal of Education* should be subscribed for and Vero Foster's Series of Copy books should be introduced.

2. The Salem Railway school is only a Third-grade Middle school and was attended by 35 children against 54 in the previous year. The decrease is attributed to the transfer of the parents of the children from that station. The school was efficiently managed by two Mistresses, both of whom held Normal certificates. One of them was qualified to teach Drawing also. This subject should be introduced into the school curriculum as a knowledge of Drawing may be of great value to the children in after-life. Now that Drawing teachers are becoming available, the Director hopes that the Agent may be able in time to provide instruction in Drawing in each of the Company's schools. Aid will be given from Provincial funds. The results of the examinations were fairly satisfactory. Two students who appeared for the Special Primary examination, however did not pass it, and Handwriting in the Second standard required to be improved. A complete set of Fester's Drawing books should be furnished to the school. Two ordinary black-boards and a chequered black-board and a complete set of Kindergarten apparatus for the lowest class should also be supplied. A copy of the *Journal of Education* should be subscribed for and a copy of books of reference, such as Webster's Large Illustrated Dictionary and Educational Calendar and Directory, and a copy of Fowler's Method, should be purchased. It is observed that both in this school and the Podanur school only half the students were receiving instruction in gymnastics. Attendance at the gymnasium should be made compulsory on all pupils except in the case of individual pupils specially exempted on proper grounds. In the case of Mixed schools boys and girls should be distinguished in table (c).—*Pro. No. 4322 of 18th April 1891.*

APPOINTMENTS, LEAVE, &c.,

By the DIRECTOR OF PUBLIC INSTRUCTION.

Ahmad Husain Sahib is appointed to act as Industrial Instructor, Teachers' College, Saidapet, sub. *pro tem.*, with effect from the 27th February 1891, vice Leonard Hayes resigned.

The transfer of Ahmad Husain to the Branch schools, Triplicane, is approved.—*Pro. No. 3457 of 27th March 1891.*

The Director of Public Instruction is pleased to make the following appointments, with effect from the 16th instant:—

M.R. Ry. H. Krishna Rao, B.A., to act as Third Assistant, Mangalore College, during the absence of K. N. Visweswara Rao on other duty or until further orders.

M.R. Ry. H. Venkata Rao, B.A., to act as Additional Assistant, Mangalore College, sub. *pro tem.*, vice Manjunath Balga.

The Acting Third Assistant will be allowed Rs. 60, the maximum pay of the appointment, under Article 161 (ii) of the Civil Service Regulations.—*Pro. No. 3458 of 27th March 1891.*

many persons of culture and of comparative leisure engaged in educational work in this Presidency, who could do incalculable good by enriching the pages of this Journal with their learning, thoughts, and aspirations. We earnestly and confidently appeal to such to assist in the good work which it is the object of this Journal to effect. The problem of Education in India is a most difficult one to solve. We believe the salvation of the country to depend in great measure on its proper solution. It will be the easier and the sooner solved when those who are best qualified come forward and assist in the spirit of faith, love, and charity.

In future a few pages of this Journal will be devoted to matters of special interest to students. Advice and suggestions will be offered to students reading for various examinations; and the serious difficulties which attend the conscientious student in his reading will be dealt with by competent persons.

THE EDITOR.

All books, manuscripts, and literary communications should, in future, be forwarded to the Editor, Mr. Thomas Denham, The Teachers' College, Saidapet; or to Royapettah High Road, Madras.

FREE EDUCATION.

The question of Free Education has been most unexpectedly sprung upon the English people by a Government which has entered on the last quarter of its existence, and which might naturally have been supposed to have little or no sympathy with so radical a measure. We are not concerned here to discuss the possible political motives which may have induced the Government to drag, as it seems to us, this question into the arena of practical politics. On the contrary, we wish to discuss the subject solely on its merits and from an educational point of view.

It is curious that the supporters of so democratic a measure as Free Education should appeal to the practice of a bygone age in support of their views. It is true that Education in the middle

ages was free in a certain sense, but in a sense very far removed from the idea which Free Education at the present day conveys. The education of the people in the middle ages in Europe was a duty which fell to the Church—a duty which the Church gratuitously undertook because she recognised what an important factor Education was to her in her character as a proselytising and territorial power. To train men who would devote themselves to her service, either by taking Orders, or by qualifying themselves for high positions in the State, was the first object of the Church in offering free education to those *who were unable to pay for it*. The success which attended her policy is well known. The influence of the Church in the councils of the State was paramount for ages. Her influence began to wane as soon as the discovery of printing and such intellectual movements as the Renaissance and the Reformation deprived her of her character as the sole dispenser of the blessings of Education.

Better than a reference to the past would be a reference to those modern countries, such as America, the British Colonies, France and Scotland, where the respective States have marked their sense of the importance of Education by making it free. Of these America presents the best example for our purpose, as Free Education there has had a long and favourable trial. And what is the result? Certainly not such as should make England anxious to try the experiment. It has not been found conducive to regularity of attendance, nor has it been the means of crippling the many adventure schools which, as in this country, are an unmitigated evil. Indeed, so far from crippling them, the system of Free Education is directly responsible for bringing them into existence. For many parents, to avoid what they fancy is the stigma attaching to the Free Schools, prefer to pay the high fees required by many of the genteel and private schools which abound. In some respects it would seem that America is well ahead from an educational point of view. As regards intelligent and improved methods of teaching, as regards the professional feeling among teachers, and their *esprit de corps*, America is far ahead of England. But we cannot help thinking that England would be taking a retrograde step by adopting the American System of Free Education.

As regards the Fee System, what is its position at present in England? The Education Act of 1870, by authorising the establish-

ment of Board Schools where the existing denominational schools did not suffice for the needs of the locality, and by investing the Boards with authority to enforce attendance, practically made Education compulsory. In spite of the low fees charged, it was found that they were a substantial barrier to some few parents whose poverty could not be gainsaid. In some cases, parents, who were indifferent to the welfare of their offspring, made poverty a pretext for not sending their children regularly to school. Accordingly, a system was adopted by the London School Board, by which the school fees were remitted to such children whose parents could make out a *bonâ fide* case of inability to pay. It is only reasonable to suppose that in the most deserving cases parents shrink from the semi-publicity which accompanies their confession of poverty; while some few systematically trade on official inability to arrive at a true estimate of their financial position. The invidious distinction also attaches to the children; for week after week, when other school children regularly pay their fees, the former as regularly have tacitly to proclaim their parents' poverty. But after all, the percentage of such children is comparatively small; and often the parents' inability to pay is synchronous only with a passing period of financial depression. But the supporters of Free Education adduce the system of the partial remission of fees as a chief argument for freeing Education entirely. Such invidious distinctions, they say, ought not to be permitted; if Education is made compulsory by law, then justice demands that it should also be made free. This is laid down as a fundamental principle, and plausible enough it looks. But it is forgotten that the law insists on the carrying out of other parental duties, without supplying the means whereby such duties can be performed. The law says that every parent shall house, feed, and decently clothe its offspring, and does not itself undertake such duties until the inability of the parent is conclusively proved. We fully appreciate the evils which must attend any system of the partial remission of fees; but we believe that official consideration may considerably minimise such evils, and in any case we cannot think that such evils justify the State in freeing all parents from the responsibility of educating their children.

Nor do we believe that the Fee System is a bar to regularity of attendance, or that Free Education would ensure such attendance. Such at least has not been the case in the United States.

The weekly fee paid in most elementary schools in England forms but a very small fraction of the average weekly wage of the ordinary working-man, and is in no sense prohibitive. So far from Free Education improving attendance, we firmly believe that in many cases it would have an opposite effect. If the fee is really not prohibitive, we believe that the parent who is already indifferent to the welfare of his children would become stereotyped in his indifference if fees were abolished. People are touched in their tenderest spot when their pockets are concerned. The fee they are willing to pay is a substantial gauge of the interest which they take in the education of their children. Remove the fee, and with it you remove the sense of individual responsibility which every parent should feel devolves upon him, so far as the education of his children is concerned. For this reason we believe that those are wrong who imagine that Free Education will enable the Compulsory Attendance Clauses of the Education Act of 1870 to be effectually enforced. As the State will supply schools, and supervise the teaching, as it will also abolish the payment of fees, the parent will also come to feel that the education of his children is essentially a matter for the Government to see to; and he will not feel the same interest in personally looking after the regularity and punctuality of his children as at present, when he is anxious to get his money's worth for the weekly fee which he pays. The small army of 'visitors' will have to be kept up, and there will be the same or even a larger number of police court prosecutions. In the United States the greatest difficulty is experienced in working the Compulsory Attendance Clauses.

Lastly, as regards the argument that as the public funds are already subsidized to defray the greater part of the cost of Elementary Education, Free Education will only complete the obligation. We know that the fees paid by parents represent but a small fraction of the total cost of Primary Education, but their retention means more than appears on the surface. The fees actually represent the value which the poorer classes attach to education. They represent in tangible form the pleasure, nay, the pride, which poor people really take in paying for their children's education. They represent the sense of parental responsibility, to undermine which will be to the lasting detriment of the best interests of the country.

As regards the present Free Education Act, which is now being introduced in Parliament, we consider that the best argument against

it is that there is no real popular demand for such a measure. The fees of the elementary schools are not generally prohibitive. Where they are, the system of the Partial Remission of Fees meets the case. We are convinced that the vast majority of English parents are both able and willing to meet the small demand made upon their pockets. But even supposing the desire for such a measure is a tangible one, the present Act will not meet the necessities of the case without a much further outlay than is intended. According to the present scheme, £1,000,000 is to be equally divided between the Board Schools and Voluntary Schools, by an annual grant of ten shillings for each child. But there are at present many efficient voluntary schools where the fees charged amount in the year to as much as three times the sum which the Government proposes to pay for each child. It is therefore certain that many able and efficient voluntary schools will have to forfeit their independence. Subscribers to such schools are becoming small and smaller in number. They naturally object to pay a heavy School Board rate and subscribe to voluntary schools at the same time. Consequently many schools, which have done good work in the past, and are still doing good work, will be made over to a School Board and will prove an extra and substantial burden to the rate-payers. Many staunch supporters of the present Government are already anticipating such a contingency.

Since writing the above, details of the Free Education Bill have come to hand. We confess that if Free Education is to be an accomplished fact in England, the present scheme is the least objectionable introduction to it. We say 'introduction,' because the scheme now before Parliament is one of Assisted Education rather than of Free Education. We were under the apprehension that the Government would insist on the abolition of all fees in State-aided schools. But we are glad to find that such schools will still be allowed to charge fees. The Government proposes to pay a fee of threepence per week, or ten shillings per year, on every child between the years of five and fourteen. So that a child who was previously paying a weekly fee of say fourpence will in future be required to pay only one penny per week. In schools where the fees were less than threepence per week, the school authorities will be the gainers, except that subscribers to voluntary schools will, in time, inevitably withdraw their subscriptions. If such schools are then unable to maintain themselves by the Government

Examination grant and by the proposed grant of ten shillings a head per annum, they will then forfeit their independence and come under the control of a local School Board. So that in reality the present scheme of Assisted Education is but the introduction to the eventual extinction of the voluntary schools. There is the more reason to expect this result, because public opinion will force Government to insist on greater efficiency, seeing that the State will be paying about three-fourths of the school expenses. In the case of voluntary schools this increased efficiency will, in many cases, mean a more efficient, and therefore, a more highly paid staff of teachers. Moreover, there is already an outcry that such State-aided schools ought to be brought more directly under local popular control. This will mean the extinction of the principle of independence, which at present constitutes the *raison d'être* of all voluntary schools. In our opinion, therefore, the voluntary schools are doomed. They have borne the heat and the burden of the day, and since the Act of 1870 have had an unequal battle to wage with their more favoured rivals—the Board Schools. One thing only reconciles us to their ultimate disappearance, and that is, that greater efficiency in elementary education must follow their extinction. We understand that a further sum of £2,000,000, will be devoted by the Government next year to the same purpose of assisting elementary education.

In India Free Education is at present outside the range of practical politics; but there is a danger lest by offering Higher Education at too low a rate we degrade it from its high position. The system by which Free Scholarships in this country are to be had almost for the asking is open to grave abuse. They are often awarded, not on the ground of merit nor of necessity; but are awarded often to those whose opportunity is great, but sense of honour small. We should like to see more attention paid to Elementary Education throughout India, and should like to see it within reach of the very poorest. But as regards Higher Education we should like to see such a price put upon it as would guarantee the proper appreciation of its benefits, bring about more thoroughness in teaching and acquiring knowledge, and be a wholesome deterrent to those, who, with a mere superficial education, imagine that their happiness and success in life depend upon their entering one or other of a few choice and overcrowded professions.

INCREASED FACILITIES FOR TRAINING TEACHERS IN ENGLAND.

In lately reading over the interesting papers relating to the Discipline and Moral Training in Schools and Colleges in India, we were struck with the unanimity of opinion which the various writers displayed with respect to improving the moral tone of our Schools and Colleges in India through the agency of trained teachers. We ourselves have never ceased to urge this remedy as one of the utmost importance for improving the education and moral tone of this country. It may therefore interest our readers to know that this question of trained teachers is receiving increased attention in every civilised country throughout the world, and nowhere more than in England at the present moment. Twenty-five years ago Matthew Arnold, in the closing chapter of his book on the Higher Schools and Universities of Germany, wrote as follows:— "I have a profound conviction that if our country (England) is destined, as I think it is destined, still to live and prosper, the next quarter of a century will see a reconstruction of English Education as entire as that which I have recommended in these remarks, however impossible such a reconstruction may to many now seem." The reconstruction to which the accomplished writer referred was nothing less than the supervision by the State of the National Education—the creation of a system which should embrace elementary, secondary and collegiate education alike—a system which should not only prescribe the work to be done in all schools from the lowest to the highest, but which should also formulate some test of the fitness of all who wished to undertake the important office of teaching. The principle of the State's direct responsibility for the National Education, for which Matthew Arnold so persistently and eloquently pleaded, is far from being fully recognised in England. We do not wish to discuss now whether such a complete recognition is either desirable or practical in a country where educational anomalies have existed for ages. What we wish to point out is that much more has been done in this direction than is generally supposed, and in no way more than in the question of trained teachers.

The present policy of the Education Department is to encourage elementary teachers to undergo a course of training at

one of its colleges. Acting teachers, or those who, having passed a written and practical examination, are privileged to teach without having been at a training college, are being correspondingly discouraged and will probably in the future receive no official recognition whatsoever. At present the Training Colleges only supply about one-half of the teachers who are in demand, and until greater facilities for training are offered by the Government, acting teachers cannot be dispensed with. Most of the training colleges hitherto have provided instruction for such students only as live within their walls. But the Department is now encouraging the colleges to throw open their doors to a limited number of day students, who are subjected to exactly the same discipline and training as is meted out to the boarders. So far as the experiment has been tried it has been successful. But better still the Department has started special day training colleges affiliated to certain universities. Most of these universities are the modern provincial ones which have been recently created, Manchester, Leeds, Liverpool, Birmingham, Cardiff, Bristol, Nottingham, Bangor, Sheffield. The idea is to attach to each of these universities a normal school, under proper supervision, where the students can acquire the practical part of their business.

It is a considerable advantage that the candidates for the teacher's office in these day colleges receive their instruction in general subjects in the classes which are attended by students not destined for the same profession. The new syllabus of studies issued by the Education Department is divided into two parts. Part I consists of distinctly professional subjects, such as the Theory and Practice of Teaching. Part II consists of general subjects. The new feature in this syllabus is that any candidate is excused Part II who has passed certain recognised university examinations. The Department keeps Part I entirely under its own management. By establishing these day training colleges the Department has entered on a policy which must be fraught with important results to education in England. But we do not entirely share the opinion of those who think that the ranks of the elementary teachers will henceforth be largely composed of persons of higher culture and social status than now generally obtain. There are a few, both men and women, who have obtained high distinction at the universities, and who are now engaged in

the honorable work of elementary teaching. But unless the Government can hold out great inducements to those who possess university diplomas and have passed the departmental examination, we are of opinion that these latter will largely recruit the ranks of middle class and secondary teachers. This is the more likely because there is a growing feeling in England that trained teachers are necessary for middle class day schools and secondary schools generally. So in a way, and to a certain extent, the Government will be unintentionally supplying trained secondary teachers. In the interests of secondary education this will be a welcome innovation, and will point the way to the more systematic training of secondary teachers.

Whether this will be undertaken by the State or the universities remain to be seen. It is interesting to note, however, that the State is gradually taking up the burden of the responsibility of the National Education. The Elementary Education Act of 1870, and the Free Education Act which is now being introduced, are direct pledges of the State's responsibility at least for the education of the masses. The Endowed Schools Act of 1869, the creation of the present Day Training Colleges affiliated to a long list of universities, the official recognition of the work done by these latter, and most of all, the appointment of the present Select Committee on the Registration of Teachers' Bills, serve to familiarise the people with the idea that the care even of secondary education is not outside the functions of the Imperial Parliament. There are signs that even the older universities are slowly waking up to the fact that they ought to do something in the way of preparing secondary teachers for their work. Cambridge has set a good example by instituting special lectures and examinations in the Theory and History of Education. London does the same so far as examinations go. At Edinburgh and St. Andrews there are endowments for the establishment of Professorship in Education. The College of Preceptors has long been working on the same lines, but has so far failed to obtain recognition by Government. At one of the leading London Training Colleges for Mistresses, special provision has been made to provide instruction in the theory and art of teaching for ladies intending to teach in high schools; and they have the great privilege of having as one of their lecturers a master in the science of Psychology—James Sully. Special Training

Colleges for ladies have been established at Cambridge and elsewhere, with the result that mistresses of High schools are better teachers, and generally produce better results than the masters of corresponding schools for boys.

Encouraging, however, as these facts are, we must not forget that in England at present there is scarcely more than one secondary master in a thousand who enters upon his work with any due preparation for it. But things will steadily improve as the Public, the Head Masters, and the Universities increasingly appreciate the overwhelming advantages of delivering over the education of the young to a set of trained men. Nothing would have more delighted the heart of Matthew Arnold, had he been spared, than to witness the real advance England is making in this question of trained teachers.

HINTS FOR THE MANAGEMENT OF A CLASS.

Our experience of Native teaching has induced us to offer the following hints for the management of a class. As a rule Native boys are exceedingly easy to teach and manage; but the average teacher, through inattention to the external aids to teaching, creates a difficulty in the management of his class where none should exist. The following hints, if carefully adopted, will bring about a vast improvement in this respect.

The Teacher.—The teacher should be scrupulously neat and clean in his dress and person. He should be guilty of none of those offensive habits, to eliminate which from among his pupils should be one of his chief objects. A cheerful exterior always attracts, while the stolidness, which we have so often noticed in Native teachers, as surely repels. Enthusiasm often carries all before it. Without energy and vigilance the best of teachers will fail. The proper use of the teacher's eye is everything. The eye literally must never be off the boys. It must evince sympathy, and must ever be on the alert to encourage and to check the beginnings of listlessness, inattention, and disorder. No boy ought to feel secure from its searching glance. Even when writing on the black-board, by the proper arrangement of the latter, the teacher's eye should always take in the class. His back should never be turned full on the class. To assist the effectiveness and authority of the

teacher, his utterances should be always slow and distinct. The teacher should come prepared with his lesson fully thought out and arranged. He will then have a definite object before him, and he and the pupils will mutually assist in attaining it. There will then be no hesitation or searching for ideas on the part of the teacher.

The Class Room.—Plenty of light and air are necessary. Pupils should be so arranged that the light comes in at their backs. Ventilation is a first requisite. Native teachers do not pay sufficient attention to this. Apart from sanitary considerations, fresh air is indispensable to mental work and good discipline. The class should be arranged so that the eye of the teacher can take in all the pupils at a glance. The blackboard should not have a central position, but be placed in a slanting position to the right of the class. The teacher's position should be central, or slightly to his right. The blackboard can thus be easily seen by all, and the teacher need only take a 'half-turn' position when writing on it. The boys on the right of the teacher should never be brought down to a level with the teacher. Otherwise they are out of the range of his eye. Much depends on the proper use of the blackboard. Its proper use comes only with great experience. At the end of the lesson it should present a good index to what has been taught, and this 'index' should be carefully used for recapitulation. It should be used well and freely for purposes of illustration, rough maps, drawing, &c. The children will exercise their faculty of observation severely, and will be intensely interested to see a map, a picture, or a drawing springing up before their eyes. Lastly, on no account should the teacher permit the room ever to become untidy, by paper being thrown about, or ink carelessly used. He should increase the children's respect and interest in their class-room by keeping it scrupulously clean and by adorning the walls with maps, pictures, drawings, &c. Many American teachers have the walls specially prepared for blackboard purposes.

The Children.—The class is a unit, but the teacher must never forget that it is composed of individuals. His teaching must be adapted to the average pupil. In a small class there is no excuse if the teacher does not soon learn the individual attainments and idiosyncracies of his pupils, and adapt his teaching accordingly. Such a knowledge will materially assist the discipline and the teaching. The children must not be preached to, neither must

they be crammed; skilful questioning is half the battle in teaching. The more that is elicited the better the teaching. The questions must be brief, to the point, and framed, as far as possible, so as to require more than a simple affirmative or negative in answer. The answers should be given distinctly and audibly, and the children should be encouraged to frame complete sentences as answers. The children should sit upright. The position of the body is often a true index to the attitude of the mind. When occasion seems to require it, a change of position on the part of the children, or a little physical drill, will work wonders. The children should come clean, both as regards their person and clothing. A neat and clean linen jacket is the most suitable for boys, but where unprocurable, a clean and tidy cloth should always be insisted on. These things all help boys to respect themselves and each other, their school and their work, and tend to create an *esprit de corps* among them. To increase this respect, those offensive habits to which even the better class of Native children are addicted must be checked.

If we were asked to state the prominent failings of Native teachers, we should say that they consisted of lack of imagination, lack of proper preparation for the lesson, the disuse or abuse of the blackboard, want of due supervision, and a habit of predilection. Fortunately, most of these are faults which can be eradicated with care and practice. Lack of imagination is not so easily remedied. But due thought to the preparation of the lesson, supplemented by a wise course of reading and observation, such as we recommended in our last issue, will do much to create this necessary faculty in the teacher.

MY PEDAGOGIC AUTOBIOGRAPHY.

[We have inserted the following interesting paper verbatim from the new *American Educational Review*. It is by the author of "*Educational Reformers*,"—which book we reviewed in the May issue of the present year.—*Ed. Madras Journal of Education*.]

[The following unfinished paper was the last manuscript upon which Mr. Quick was at work at the time of his sudden death on March 9. It is written in his best and most attractive manner, and every teacher who has derived inspiration and instruction from his writings will read with profound interest this account, though partial only, of Mr. Quick's recollections of his own education and early teaching.]

experience. The manuscript is printed without any alteration or omission, and it breaks off at the point where the author left it to undertake his last journey to Cambridge.—Ed. *Educational Review*.]

My friend the Editor has asked me to contribute to the new *EDUCATIONAL REVIEW*, of which the first number has just reached me. I cannot but be gratified by an invitation to join such a body of workers in the educational field, men whom I know,—personally or by name,—as leaders of the best educational thought we have. But there is a slight difficulty in the way. I am in the habit of protesting, in season and out of season, against the amount of time spent on periodicals. I have just written for the press (for a periodical, to tell the whole truth) an assertion that we are in great danger from the increasing number and indeed from the increasing excellence of our magazines. There is a constantly swelling stream of literature that demands our attention, with the alternative, "Read now or never!" It is so good that we dare not say "Never," and so all our time goes in reading what is and is meant to be, fugitive. And fugitive let it be! Woe to the man who in the days of his youth and ignorance tries to keep and ever bind up a periodical! Unless he is the most methodical of men, he is always hunting for back numbers. And apart from this difficulty he finds the tide always rising. Before long he has to get another book-shelf; then he wants another room, and at last another house. I once tried the experiment of keeping only condensed periodicals, so to speak. From the current magazines I cut out the articles of special merit and threw the rest away: but even this would not do. To be used, the collected papers had to be bound up and indexed, and then a general index made of all the volumes; and this index kept making fresh demands on one's time. "The librarian who reads is lost," says Mark Pattison; and there is a good deal of truth in this. Certainly, with periodical literature you must make your choice. Read and let the stream flow on, or try to dam the stream up, and you will cause an inundation in which you are likely to "go under."

Meditating on the waste involved in periodicals, I once devised a scheme which I propounded to a friendly editor, and he only scoffed at it. Still, I am so impressed with the importance of a permanent element in our reading that I will not keep my invention a secret, but will give other editors farther from home a chance of using it. I suggested that the magazine should have two parts,—one fugitive, the other permanent. For the permanent part I would arrange a cycle of papers, original or selected, in which the main truths bearing on certain special subjects should be put in such a way as to make the statement deserve to live like the truths themselves. This cycle should revolve in three years. In

this way all readers would get something specially good. Careful readers would hail an old friend, and the careless would find at the end of three years the charm of novelty.

I fear some of my readers will begin to suspect that I am going to attempt a specimen of a permanent article, especially when I say I am about to write on a subject which no one can handle as well as I can: "I, however, intend to keep strictly to the fugitive, most fugitive, portion of the *REVIEW*, and leave the permanent to those who discuss subjects of permanent interest. I think I may safely say that no one can handle the subject I have selected as well as I, for, in point of fact, nobody else can handle it at all. Whether it be worth handling or not, I have my doubts; but when I thought over what I could write about, I remembered a lecture I once gave on my own school experiences. It was, I think, a very hot night. This, or possibly some other cause, reduced my audience to seven or eight, and some years later I published the lecture in a school newspaper, without any one, as far as I know, finding out, or wishing to find out, who the lecturer was. I might seem quite safe in assuming that nobody remembers this old lecture, but I think I have experimentally hit upon a law which it would be difficult to base on *a priori* grounds—at least, I know no *a priori* argument for it. The law is this: that whenever you take for granted that everybody has forgotten an old article or lecture or even sermon, there is invariably one person, neither more nor less, who remembers it. In this case, where the one person may be, I, of course, have no notion; but I have no doubt of his existence, and if this article should chance to meet his eye, I should be glad to hear from him, especially if he knows the connection (not a very close one) of what I say now with what I said before.

The celebrated question put to the needy knife-grinder by the friend of humanity, "Tell me, knife-grinder, how came ye to grind knives?" is a question that seldom admits of a simple answer. Few knife-grinders can say: "To grind knives was my ambition from infancy." No; a variety of circumstances determines us, and if choice has little to do with the matter, the knives may be none the worse ground on that account. In my own case, there was perhaps more choice than usual. I wanted a change from the work I was doing, the work of a curate in a large London parish; and I felt attracted by work which a clergyman can always turn to without deserting his profession, the work of a schoolmaster. It did not seem to me or to any one else that for this work preparation was needed. To teach in an English elementary school (a school under government) a young man or young woman has to pass a special examination; but for no other school is this needed. In the days I am speaking of (more than thirty years ago) training of masters

for secondary schools was as little thought of, as it is practised now. Except in the case of the unfortunate ushers, a university degree was of course necessary. The leading public schools secured, straight from Oxford or Cambridge, men with "good degrees," i.e., men who had obtained a first class in classics, or for mathematical teaching, in mathematics. Men with ordinary degrees who wished to teach had to take a berth either in a private school or in one of the numerous grammar schools, where the salary obtainable (with board and in some cases lodging), varied from £70 (\$350) to £100 (\$500) a year. This £100 would only be a fourth or a fifth of the pay given to the man with a good degree when he first became assistant master in one of the greater "public schools." But the only requisite in either case was (and is) an Oxford or Cambridge degree, the "good degree" being valued at four or five times the rate of the ordinary degree. After thirty years' experience of this state of things, I must say I am completely bewildered by it. In this country the assistant masters are appointed by the head master who has himself been chosen by the body of governors. In the great public schools not only is the head master paid from £2000 to £4000 (\$10,000 to \$20,000) a year, but he also has tremendous powers intrusted to him. The consequence is that in the case of the first half dozen schools, or thereabouts, the governors seldom fail to secure a man of first rate ability; and he has every motive for getting the best possible assistants; but as yet no one believes in training and even experience is not so highly valued as a good degree. In some instances the head master owes his own position to distinction at the university, without any previous experience in teaching. This was amusingly turned to account in a speech made by the present head master of Harrow, when he had just been appointed. Dr. Butler, his predecessor, had proposed his health, and pointed out his various qualifications for his new post. In reply, the present head master said that there was one qualification which Dr. Butler had omitted. He, the successor, was older when appointed than those who had gone before him. He had turned thirty, and Dr. Butler had been appointed at twenty-eight, and Dr. Vaughan, the previous head master, at twenty-nine! So it would seem that in this country the highest eminence in the scholastic world is often obtained *per saltum*; and when a young man is made head master, he naturally chooses young men to vacant places among the assistant masters. It is no doubt a great matter to secure vigor, and young men with a good degree are pretty sure to have great powers of concentration, and to be accustomed to work quickly and well. This is most important in a large school where things would get chaotic if the masters could not get through a great deal of work. I see all this, and

yet I am astounded that masters, even with the highest degrees, but without other preparation of any kind, are ever allowed to take charge of a class, especially of a class at the bottom of the school. The result is sometimes just what we should expect if a brilliant pianist who had never taught were selected to instruct beginners, or a man who had, say, a perfect mastery of French had suddenly to attempt to teach French to those who had not begun it.

I have, unfortunately, got on to a subject about which I find it hard to stop, and I have said more than enough. To come to my own experiences, I had the only requisite for a mastership in a grammar school—a university degree. But before I went to school work I spent a winter in a family in Leipzig. My attraction to Germany was due rather to study of Carlyle than to any craving for "Pädagogik," but by learning German I got access to much that I could not have got at through English.

When I undertook school work I not only was totally ignorant of my want of preparation, but, I felt confident, could teach much better than I had been taught. After all, this conviction does not prove that I was very conceited. As a schoolboy I had never been idle, and if I learnt little I learnt as much as anybody tried to teach me. Most of my school days were spent in a small private school kept by a man who was then (would he be now?) an ordinary private schoolmaster. On the subject of education I should say that the mind of my old friend must have been a perfect blank, and that he knew no more about it, and cared no more about it, than about electricity.

But school keeping and educating have no necessary connection. The schoolmaster, or to speak more accurately, the school proprietor—was a highly respectable and a truly kindhearted man, but the interest he took in the "young gentlemen," as we were called, was just about the interest of the owner of livery stables in the horses put up with him. In his stables we had plenty of food for the body, though not for the mind, and we were taken out for just enough air and exercise to keep us in health. Of course you can't expect the owner of the livery stables to attend to the horses himself—for that he has stableman or horse-keeper—and my school-owner had his usher. There were some sixteen of us boys, and we were in charge of the usher from half past six in the morning till half past eight at night. We were "at lessons," i.e., we had to sit quiet, for eight hours out of the twenty-four, and during these the proprietor, who never saw us out of school except at dinner, used to look in and stay just as long as his convenience or his fancy suited. When in school he set copies, practised his one pedagogic art—the art of mending pens (quill pens in those days)—and heard "lessons,"

i.e., pieces we had to learn by heart in school epitomes of history and geography. As far as I know, there was not a map of any kind in the house. I forgot to say that the proprietor also took the arithmetic; but this consisted in providing us—at our parents' expense—with books from which, when we wanted something to do, we might copy sums and see if we could get out an answer like the book. If we could not do this, we took our slate up to the master's desk and he did it for us. This is how I did not learn arithmetic.

It is pretty clear that my school proprietor was no teacher. Some one has said that the art of the school proprietor lies in the management, not of boys, but of parents, and this was certainly the art which my old friend practiced with great success; but in managing boys he was, as far as discipline went, by no means a failure. He kept us at a distance by a dry, official manner; but although we were somewhat afraid of him, there was not the slightest trace of unkind feeling between us. It is sometimes assumed that every one with two manners is of necessity a humbug. This I deny most emphatically. Within the last fifty years I have come across a few people, I should say half a dozen at the most, whose manner, whether a good manner or a bad, was the same to all. But how very, very rare this uniformity is! I am quite conscious that my own manner is not the same to everybody, and I would ask the reader to put it to himself whether he is equally gracious, or may be ungracious, to every one he addresses. So I am far, indeed, from accusing my old friend of being a humbug when I remember his short, dry manner with us, and his manner, which was not short or dry, if he addressed a parent. Years after leaving I went to call upon my old friend, and I had the greatest difficulty in keeping my countenance when I found myself treated to the parents' manner.

But if I learned nothing from the school proprietor, I did learn something (not much, it is true) from the usher, or rather from the series of ushers, for not unnaturally we had a fresh usher every year, sometimes oftener. I still think with amazement of those ushers. Skilled teachers they were not, but they were much better than might have been expected, and when I think of their confinement for fourteen hours a day (sometimes for a treat they were let off with twelve!), they seem to me to have shown almost heroic endurance. But obviously their great effort must have been to support existence, and they could not have troubled themselves much about our learning. No one thought about our powers, whether of mind or body, and no kind of power was likely to be developed by the dull routine of our daily life, by our regular walks, two and two, with the usher behind us, or by our "lessons," the chief object of which was to keep us quiet.

So, perhaps, my notion that I could teach better than I had been taught, was not altogether unreasonable. My experience was not, indeed, confined to this school, and elsewhere the ushers were not quite so badly treated. At one school where I was for a very short time there were two ushers, and they gave me a lesson for life on the importance of manner. One of these ushers has always lived in my memory as an object of horror, the other of love. I don't fancy there was anything like so much difference between them in reality, but the first always spoke to us in a sharp, drill-sergeant's sort of manner, the other always spoke kindly to us; and what a difference this seemed to us small boys, a difference which is very fresh in the memory of one of them after an interval of fifty years.

Perhaps I can now give a partial answer to the question, How came you to grind knives? Boys have a much juster appreciation of the way they are taught than we usually suppose. I do not know whether I was more "viewy" than boys in general, but I certainly felt that much of the "teaching" I had to undergo was all wrong; and that if I were a master I could teach a great deal better. This boyish conviction to a great extent determined my future life, for my old impressions returned when I felt dissatisfied with parish work, and I resolved to see what I could do as a master. And to schoolmastering I turned with hopes of doing great things.

What has been the result? Whether or no I have taught better than I was taught, I can hardly by any possibility have taught worse; but, on the other hand, I must frankly confess that I have not succeeded in bringing about results at all answering to my early dreams. Some of my projected improvements I have never been able to carry out; others, which I have carried out, have not made the difference I expected. I ran against many unforeseen difficulties, some of which might have been avoided had I been properly prepared for my work, but some inherent in the work itself. Without having learnt to swim, I plunged into deep water by taking a mastership in a provincial grammar school. If I rightly remember, I was to be paid at the rate of £70 (\$350) a year, besides my dinner, but not lodging or my other meals. This school, like most of our grammar schools, had only a very small endowment. In consequence of the endowment, the townspeople might send their sons at a low charge as day boys, but the head master drew his income from the boarders, for whose benefit all the arrangements of the school were made. The head master had laid out a good deal of money on the buildings, and the school was practically his private speculation.

In the last thirty years I have worked with a great variety of men, and I cannot say that I have retained the same feelings of respect for all;

but there is only one man for whom I feel no respect whatever, and this man was the first head master under whom I started teaching. If I went by the rule *De mortuis nil nisi bonum* I should have to preserve a strict silence about this gentleman.

REDHILL, SURREY, ENGLAND.

ROBERT HEBERT QUICK.

RELATION OF THE UNIVERSITY TO THE PUBLIC SCHOOL.

[We lately had occasion to draw attention to the relation which exists between the Universities and the Public Schools in India and England. It may interest our readers to know the kind of relation which exists in America between these two institutions. The extract is from the *Educational Review*.—Ed.]

Now let us turn to the relation of the university to the public school. They have no organic connection, because they have been derived from different sources. The university came to us from the Old World, but the public school is an institution of American origin. While they are both State institutions, they have separate governing boards, but the pressure of necessity has brought them together, and every year they come nearer and nearer to forming a co-ordinated system of education. This has been done by harmonious action between the teachers on both sides. The governing boards have no connection with each other, but the teachers feel their mutual inter-dependence, and are anxious that the courses of study in the high schools should be so directed as to lead the scholars straight to the doors of the university; while the latter is necessarily restrained from lifting its curriculum so high as to leave a gap between it and the schools.

The effect of this is seen in the system of "accredited schools," first introduced by the University of Michigan, under which the university professors examine in person the high schools, and if they are satisfied with their efficiency, the diploma of graduation from the school, accompanied by a recommendation from the principal, is accepted by the college in lieu of entrance examinations. The spirit of harmony between the university and the public school, which has its origin with the teaching force of the university and not with the regents, is steadily increasing in power. The schools are anxious for the indorsement of the university, and the university professors are equally desirous of the increased number of students and the powerful backing which they gain from the support of the school teachers. The union helps both sides materially.

But it acts somewhat as a limitation at the same time. It compels the university to keep its curriculum within reach of the school, and to

167

maintain such entrance requirements as will be deemed useful studies by the Boards of Education. These relations are a matter of constant adjustment between the teachers on both sides, and I do not think it is fully understood how much influence this connection has upon the university, an influence which must of necessity constantly increase.

Another sphere of usefulness which is coming to be very generally recognized as a prime duty of the university is the preparation of teachers for the better class of schools; this cannot be properly done by the normal schools, and it necessitates a department of pedagogy, or the science and art of teaching, to be maintained in the university. This again will require a close connection with the normal schools, like the connection with the high schools which I have been describing, so that the normal graduate can step into college on her diploma, and there receive the necessary training for the higher positions. Whenever trained teachers with more or less university discipline and influence shall fill all the better positions in the public schools, it will greatly increase their efficiency and will elevate their standards.

NEWS AND NOTES.

LOCAL AND INDIAN.

H. B. Grigg, Esq., M.A., C.I.E., Director of Public Instruction, has been appointed Acting Resident of Travancore. Dr. David Duncan, M.A., Principal of the Presidency College, acts for Mr. Grigg as Director of Public Instruction.

Mr. H. B. Grigg, C.I.E., arrived at Trivandrum on the afternoon of July 3rd, and took over the charge of the Residency from Mr. Hannyngton.

The Government, on the recommendation of the Director of Public Instruction, has permitted Mr. Thomas Denham, Vice-Principal of the Teachers' College, to become the Editor of the *Madras Journal of Education*.

Mr. Grigg has circulated for the opinion of the Principals of all Government Colleges and High Schools, and the Inspectors of Schools, a draft Code of Rules for the internal economy of Colleges and Schools.

Mr. S. Sattianadhan, M.A., Assistant to the Director of Public Instruction, has gone to Alibag, near Bombay, on 2 months' privilege leave from June 1st.

The Agricultural College at Saidapet was re-opened, after the Midsummer vacation, on July 1st. The Junior Department attached to it was abolished last session.

The Teachers' College will be re-opened on Monday, July 13th.

About 75 students, (B.A.'s, F.A.'s, and Matriculates) will be admitted into the Teachers' College. The applications for Scholarships were far in excess of the number of students that can be taken as stipendiaries.

Additional buildings for the Teachers' College have been sanctioned, and their construction is fast progressing.

We hear that proposals have been submitted to Government, constituting the Lower Subordinate Branch of the Educational Service similar to the U. S. Educational Service. The clerks are included in these proposals.

Miss C. Harmen, of the Madras Medical College, is the recipient of a prize for some anatomical models she produced.

The late Miss Seward, M.D., of Allahabad, was not the first medical lady who practised her profession in India. Miss C. Swain, M.D., now in the service of the Rajah of Khetri, Rajputana, has the honour of being the first medical missionary of her sex in the east. Dr. Swain reached India at the close of 1869. Dr. Seward commenced her work in India in 1879. — (*The Christian Patriot*.)

Government has sanctioned the appointment of a carpet maistry on a salary of Rupees forty per mensem.

We draw the special attention of the Native Christian students of Madras to the rules of the Prize Essay Competition in connection with the Madras Y. M. C. A. which appear in the current number of *The Young Men of India*. The subject was suggested by the Director of Public Instruction. Two prizes of Rs. 10 and 5 are offered for the best Essays on certain subjects. Great care seems to have been taken in the selection of the subjects, however, the following:—Charles Kingsley as a Novelist; Walter Scott as a Novelist; Indian Social Reform; Utilitarianism; A criticism on George Eliot's *Mill on the Floss*; Longfellow as a Poet; England's influence on India; Responsibilities of Educated Indians. Of the Essays sent in, six will be selected by the Literary Committee to be

read by the essayists at the monthly meetings. Though all may not win prizes, still the attempt will be helpful to the competitors in many ways.

The following is from the Report of the Deputies of the Free Church of Scotland on the educational work of their Mission:—"We are inclined to believe that our own Church has not quite done its duty in the matter of the education of our Christian boys, and that it has suffered in consequence. We have not those boarding and day-schools for Christian boys which we have for Christian girls, and we think that is a defect. It is certain that our Church, with all its educational work, does not use education as a means of "uplifting" and consolidating our Native Christian community in a way that many other Missions do, and has undoubtedly suffered in consequence."

The following is the reply of the Madras Local Committee:—"We are at one with the Deputies in thinking that more might be done and that more ought to be done by all the Churches in Southern India for promising Native Christian boys. Our own Mission has not perhaps done all it should have done in this direction. But it has done something; and one member of it has done what should not be forgotten in connection with this subject. The erection of the Fenn Hostel by Dr. Miller for Christian students is an outstanding service to Native Christian boys which certainly deserved some recognition. It must also be remembered that to all the Christian boys at our schools the competition for these scholarships is open. Besides, the Secretary is authorised by the Local Committee to spend a small sum annually to help Christian boys; and if the amount at our disposal were increased by special contributions from friends of the Church at home, we should gladly administer it for this most desirable end."

The Government of India have empowered the Punjab University to grant the degrees of Bachelor and Doctor of Laws. The Punjab University Act of 1862 provided that the Governor-General could empower the University to grant the degrees of medicine, law, and other faculties whenever he should be convinced that the proficiency of the Punjab students in those branches of knowledge was equal to that of students who receive degrees from the University of Calcutta.

With the object of further encouraging the study of Oriental languages by military officers, the Secretary of State has sanctioned the removal of the restrictions regarding actual residence in India which are now in force as to rewards for degrees of honour in Hindi, Bengali, Persian, Sanskrit, and Arabic.

of the country. Dr. Fitch's evidence, and the cross-examination thereon, occupied the whole of the sitting.

The one thing certain in reference to the proposed inauguration of free schools is, that they will neither do all the good nor all the evil they are expected to do. Nor can we suppose that the two millions or more to be spent in the service of free education will be the last educational expenditure the State will be called on to bear. Legislators who in 1833 voted £20,000 a year in aid of building school houses, never dreamt that they were originating a system that would in sixty years develop a great State department and numerous local educational Boards, and cost the country some ten millions sterling annually. We cannot pronounce a system complete and perfect which devotes no portion of this immense expenditure to secondary schools.

"Oxford men, at least, had better combine for the moment to upset a most mischievous proposition of adding to the present menagerie of their University a quasi-College for Board Schoolmasters. You may render University education valueless in this way. You will not render primary education more valuable." In these graceful and characteristic words the *Saturday Review* refers to the proposed University Training College. The writer speaks as if he was an Oxford man; unhappily, it is quite possible that he may be. Not to him, but to a few whom he might mislead, it is well to point out that the University makes no concession whatever on its own side. It requires all the examinations and all the residence from the Training College candidates which it requires from anybody else, before it will give them a degree. The real doubt is whether the scheme will be of any use without some concessions. Can anybody really go on for three years satisfying the University and the Department *pari passu*? Even if he can, it is to be feared that the necessity of Responsions and the Preliminaries will keep him tied down to the Pass schools. The present writer is opposed, in general, to the remission of Greek; but he would consent to it in this case, if it should be really proved that we cannot get the elementary teachers on other terms. There is one detail which betrays the abundant caution of our legislators. Why must the members of the College be "such male candidates"? It is a "Day Training College," so there is no residential difficulty. If female candidates came up, they could not be members of the University, but what harm would be done to anybody if they were members of the College?—*London Journal of Education*.

Mr. Anberon Herbert convened a breakfast party at St. James's Hall, on the 19th ult., to discuss a scheme of non-competitive examination, by means of which its supporters hope to combat the alleged evil results of competitive examinations. Dr. Wyld occupied the chair, and after breakfast Mr. Herbert read letters from several correspondents, who gave a more or less qualified support to the movement, amongst these being Professors Darwin, Max Müller, Nettleship, Nicholson, Ramsay, and Dr. Warre, of Eton. He next read a list of persons who had signed a statement to the effect that they approved generally of a scheme for offering to those undergraduates who dislike reading with a view to examinations as an end in themselves, an examination by which a degree of high character should be given at the Universities, without competition of any kind, and with the least possible disturbance of study pursued for its own sake. In order to pass this examination, sound knowledge in the selected branches of the selected subjects would be required; but the pupil and his teachers would be left as free as possible to determine the direction and character of the work chosen. The great requirement would be, that the work should be good and thorough of its kind with a very wide freedom allowed as to what that kind should be. A statement of the nature of the work would be submitted beforehand to the examiners, and approved by them. The examiners might, so far as they thought fit, allow papers to be submitted to them, the writers being questioned upon them, and called upon to explain and discuss all matters arising out of such papers. Full reports of work done under the direction of tutors and professors during the University period would be handed in to the examiners, and would help to decide in granting the degree.—*London Educational Times*.

The benefit which has accrued to Egypt from the English occupation is strikingly evidenced in the matter of education. Nine years ago, before the rebellion of Arabi Pasha, there were few, if any schools, but since that time the people have steadily endeavoured to accommodate themselves to Western notions of justice and Government, and, as a consequence, to the spread of intellectual ideas and accomplishments. A return recently published states that the precise number of schools in Egypt is now forty-seven, while the attendance has come to exceed 7,000. This is highly satisfactory, and the more so as the fellahs have been distinguished for ages for their crass stupidity and ignorance. But there is one point in connexion with education in Egypt which should be insisted on. The teaching of English should be made compulsory, not left, as now, in a haphazard state. French is universally taught, and it is humiliating to England that the language of the paramount Power

LITERARY AND GENERAL.

The rectorial address recently delivered at St. Andrews by Lord Dufferin has been published, in handsome pamphlet form, by Messrs. Blackwood.

Recent statistics again show that Germany is the greatest book-producing country on the globe. The figures for 1890 give a total of 18,875 publications,—an increase of 889 over the preceding year. This record of literary activity exceeds that of England, France, and America combined.

The 'Guide-Book for Books,' by Mr. Sargent and Mr. Bernhard Whishaw, will be issued by Mr. Henry Frowde. The total number of books on all subjects recommended in the 'Guide' is about six thousand. It is arranged by subjects, and gives in addition to the titles of books, the prices, and in many cases brief descriptive notes.

It is announced from Cape Town that Mr. Rhodes contemplates the building of a Teaching University there. He has bought a property in a suburb of Cape Town for the purpose.—*Echo*

CARDINAL MANNING AND EDUCATION.—Cardinal Manning has issued a pastoral letter, in which he describes the impending legislation on the education of the English people as far beyond every political measure in importance. In regard to this subject he says, "We are in a crisis the gravest we have ever known, and in all probability the last, and certainly the most favourable we shall ever have of securing the freedom of the English people in educating their children in conformity with their own consciences. We are, therefore, bound by every obligation of faith and fidelity to our brethren to make any sacrifice of money, time, and labour to guard, to multiply, and to raise the efficiency of our schools."

SUCCESSFUL NEWMHAM STUDENTS.—An examination of the most recent report of Newnham College shows that twenty-five former students are now holding scholastic posts abroad. The most recent addition to their number is Miss E. M. Hensley, a student in the early days of the college, when it was located in the quaint old mansion known as Merton Hall. Miss Hensley has been appointed Principal of the Ladies' Hostel of Trinity College, Melbourne University. Miss Alice von Cotta, a German lady, is directress of the Victoria Lyceum, Berlin, the nearest approach to a college for women that Germany possesses at present. Another lady is head mistress of a school for Eurasians at Rangoon, and old Newnhamites

are to be found presiding over or teaching in schools in China, Japan, and South Africa, as well as in various cities in the United States and Australia.—*Echo*.

Our London namesake says:—The field is now clear, and we do not see how, after the report of the Commission, the President of the Council can refuse his consent to the granting of a Charter to the combined Colleges of University and King's, as the only corporations able and willing to form what the Commissioners pronounced an immediate necessity—"a teaching University in and for London."

The upshot of the whole investigation undertaken by the Select Committee on the Registration of Teachers' Bills is that the Committee have learnt from several distinguished teachers, who have approached the question from different points of view, that some kind of test of teaching power is desirable, and practically applicable in the case of secondary school teachers, and that registration would supply a stimulus to incite them to satisfy such a test.

On the 1st of May, Dr. J. G. Fitch, H. M. Inspector of Training Colleges, gave evidence in favour of a limited and voluntary system of registration, without any penal clause in the shape of disability to recover fees. He thought it advisable that the operation of the Bill should be limited to England and Wales, and that the Educational Council should consist solely of nominees of the Crown and representatives of the Universities and of the registered teachers. The Register to consist of three classes of teachers: (i) Teachers in First Grade schools (i.e., schools which prepared a certain proportion of their pupils for the Universities); (ii) Teachers in intermediate schools; (iii) Certificated teachers in public elementary schools; each class of registered teachers to elect two members to represent it on the Educational Council. The qualifications for admission to the Register to consist of University degrees, teaching diplomas granted by the Universities, the College of Preceptors, or other bodies recognised by the Council, and the Certificates of the Education Department; but, owing to difficulty of applying it, a test of practical ability to teach not to be required in the first instance as a *sine qua non* for registration. The Minister of Education for the time being to be the chairman of the proposed Educational Council, the functions of which would, in the first instance, be limited to the registration of teachers, but might afterwards be extended, on obtaining fresh powers from Parliament, to the general control and supervision of the secondary as well as the primary education

given to the important principle of breaking up numbers as a ready means to solving involved problems. The dullest child can easily be initiated into the process to the saving of much time and labour, and to the strengthening of the mental faculties. Many text books on Mental Arithmetic suffer from the serious defect of laying down hard and fast rules, unintelligent to the youthful mind because the process involved is not explained. We have not noticed this fault in the small manual before us. The latter consists of some thirty short pages, and treats of the first four rules as applied to calculations up to ordinary money sums.

BRIEF HISTORY OF THE BRITISH EMPIRE. Royal School Series. T. Nelson and Sons, London, Edinburgh and New New York.

This book is well illustrated with pictures, maps and plans, and is generally well adapted for the use of the young. There is a very useful introductory chapter on "How the British Empire Grew." The story is brought down to the year 1890. It might be read to advantage in the lower forms of our schools in India.

SAGUNA. A story of Native Christian Life by an Indian lady. With an Introduction by Mrs. R. S. BENSON. Madras: Lawrence Asylum Press, Mount Road.

We welcome with great satisfaction this story of native life by an Indian lady. The latter deserves our deep gratitude for having partly raised the thick veil which hides the social life of the natives of India from the eyes of those who are most anxious to penetrate its inward recesses. The harsh, yet well-meaning mother-in-law, her son who looks down with contempt on his girl-wife, the young wife subjected to the stern rule of a jealous mother-in-law, all make a vivid impression on the mind—an impression to be cherished the more because the characters here delineated are evidently typical ones. It is consoling to think that the cheerlessness of the native home is at times lighted up by such friendship as that described by the authoress on page 35:—"The bond of friendship where it exists in these primitive Hindu homes is very strong. It is the only support that the heart has in the midst of many of the greatest trials of life. True as steel the friends cling to one another in times of trouble, and when there is affliction all personal considerations are laid aside, and the ordinarily selfish nature of the Hindu shines brightest in the utter abandonment of self. He throws himself heart and soul into the work of filling the gap that affliction has created."

But is such friendship, in so desirable a form, as general as the words of the book seem to imply? Whether desirable or not, it is an example which may well be followed by Christian communities.

Another interesting trait in the Hindoo character is described on page 36:—"The journey was full of religious associations, and her mind was elated and refreshed by the sight of many a sacred temple, tank, and river of which she had heard so much. That pure crystal gurgling spring was caused by mighty Rama's arrow. That rugged hill was a stone that fell from Ravana's hand when chased by Rama, and that cave in the midst of the hills and overgrown with creepers was Seetabai's harbour during her exile." In connection with the love of nature which these words portray, we cannot help quoting a charming description of mountain scenery given on page 57:—"There lay round him the world sleeping in the misty evening light, silent and still except for the sighing of the wind and the hum of the insect world from the valley below. The woods, black and massive on the right, were seen with the gleam of the broad silvery river flashing through them. On a neighbouring ridge, high against the still softly lit sky rose the tall, waving, feathery bamboo. At his feet was Devaghar wrapt in mist. Behind lay the mountain solitudes—long ranges gray and shadowy, on the peaks of which a soft aureole of light still lingered as if each had caught and retained a part of the evening light and was reluctant to part with it. In the heavens above a faint sparkle here and a glimmer there were seen as the infant stars rose from their twilight beds. A lovely world this, wrapt in its soft dreamland light. Oh that it were lovely in another sense, that there were no guilt, no sin to mar the God-given peace and beauty of the human soul, and he walked on and murmured: 'By God's help, yes even this is possible.'"

We confess to a pleasant surprise that such a power of observation and love of nature do exist among educated natives; for our experience has led us to the conclusion that the average native is entirely lacking in imagination and in the power of observation.

The story of Harichandra's conversion to Christianity is well told. He was an orthodox learned Brahmin, and being of a thoughtful and studious disposition, became sceptical with respect to the doctrines of Hindooism, which doctrines had before appeared all-satisfying to him. The language employed (page 54) to show the change effected in him is sublime. His religious feelings outran his patriotism. The struggles with his relations and caste people are well described. These troubles were eventually overcome by the practice of such virtues as are recorded of the early Christians. Many will agree with the authoress,

should give way to French, and even Italian. The Khedive is our good friend. He has liberal tendencies, and has shown great capacity for education. The resignation of Riaz Pasha, whose unprogressive régime will find no favour with Mustapha Pasha Fehmy, his successor, may lead to the Government and influential natives using their influence to spread education and the study of the language of the protecting Power. —*The London Correspondent of the Madras Times.*

* *

PAYING TEACHERS.—The library of Madrid has just published a general view of the delays in the payment of Spanish teachers. A large number have not seen for twenty years a third or a half of their salary. More than 25,000 teachers have not received their regular payments. In all, the sum due to teachers amounts to 3,055,033 pecetas, or considerably over \$700,000. A teacher in Benjarin, Granada, was owed 2,124 pecetas, but as he could not get any money, he took to selling matches, while his wife and daughters sought positions as domestics. Many teachers have been obliged to receive public charity. Many have closed their schools, not having the strength to continue their work. A teacher in Torvizon, to whom the commune owed 6,000 pecetas, was shut out of the schoolroom because the proprietor could not get his rent. While she was able she had paid the rent, adding this to the amount due her from the government. The report leaves one wondering if all the public spirit in Spain is confined to public school teachers.—*Boston Journal of Education.*

* *

MODERN GEOGRAPHY.—Modern geography is a more fascinating study than that of other days. Few know how great has been the change in books, appliances and methods. There is a geographical magazine that is devoted entirely to the teaching and study of this subject, and the editor, Mr. Goldthwait, is an enthusiast as well as an expert. Under his inspiration there is a geographical exhibition in this city this year, under the auspices of the Appalachian Mountain Club. This exhibition has already been held in Brooklyn, and was a great success. It compares favorably with the collection of the Royal Geographical Society of London. It is placed in the Winslow skating rink. There are 400 linear feet of maps, with a vast array of atlases and mechanical appliances. There were 30,000 in attendance upon the Brooklyn exhibit, and Boston will make as good a showing. It is free to the public. All the materials have descriptive labels, so that it is instructive to the most casual visitor.—*Boston Journal of Education.*

* *

TEACHERS' HOMES.—New York City is fast becoming famous for the enterprising departures of the school teachers. The latest and certainly the most unique of all their schemes is the formation of the Teachers' Land and Improvement Association, which has purchased a large tract of land eight miles from the city, laying out streets, grading, and mapping out the land for building purposes. Already several buildings are in progress. An old mansion on the estate is to be made into a hotel where teachers who desire can board. Recently an excursion train with free passes carried out a number of teachers under the leadership of the president, Mr. Van Cott of Grammar School No. 26. All the directors are teachers, a woman teacher being the treasurer. This venture will be watched with much interest.—*Boston Journal of Education.*

REVIEWS AND NOTICES OF BOOKS.

[We regret that owing to the recent change in the Editorship of this Journal many books for review have not yet reached us.—Ed. J. of E.]

THE F.A. EXAMINATION ALGEBRA GUIDE, containing a Synopsis of Rules and Formulæ and the Madras University Arts Examination Papers in Algebra from 1860 to 1890, with their Solutions. By V. R. VENKATARAMA AIYAR, B.A., L.T., Assistant, Teachers' College, Saidapet; formerly Assistant Lecturer in Mathematics, Kumbhakonam College. Madras: V. Kalyanaram Iyer, 1891.

This book answers well the purpose for which it was written. The Synopsis of Rules and Formulæ is well graduated and arranged, and if properly mastered should prove invaluable to candidates for the F.A. Examination. As far as we have been able to test the solutions they seem to have been worked out by the best approved methods. The type is a model of neatness and clearness, though it is a trifle too small to our mind.

MENTAL ARITHMETIC for use in Primary Schools, by Rev. R. B. FEAST. — Madras: Lawrence Asylum Press, 1891.

We quite agree with the author that more attention ought to be paid in our schools to purely mental work. It is curious that in India, where the Malays have for centuries been proverbially noted for proficiency in Mathematics, so little systematic attention is given to mental arithmetic. In the little book before us much prominence is

that, with an increase in the number of native Christians, there came a decrease of that simple earnestness so noticeable in the case of genuine adult converts; and that the vices of the native Christians of the present day are much the same as those which characterise Christians generally. If the native minister on his way to preach at the fair, if the Missionary who is visited by Saguna and her mother, if Miss Roberts who superintends the Mission Boarding House, or Miss P. who conducts the Bible Class, may be taken as typical characters, then we have here one very serious cause for the little progress made in gaining converts to Christianity. A comparison, too, between the Missionary and the sceptical Collector as regards the virtues of courtesy, good breeding and culture, is drawn all in favour of the latter.

We have marked our sense of the importance of the book before us by reviewing it somewhat at length. We heartily recommend it to our readers. Every one in England who is interested in this vast continent should carefully peruse it. It will give them a faithful picture of native life, it will show them its bright as well as its dark side, it will show them how the machinery for working Christian missions may be improved, and finally it will show them that the regeneration of India lies in great measure in educating its teeming masses—women as well as men. The extracts we have given speak best for the style of the writer, and speak volumes for the good that Higher Education is in many cases doing for the native community. We can only hope that the gifted authoress intends that "Saguna" shall be but the first instalment of many such books illustrative of native life.

ACKNOWLEDGMENTS.

We have to acknowledge with thanks the receipt of the following Books and Magazines:—

BOOKS.

- The Monetary Question, by G. M. Boissevain. Translated from the French by G. Townsend Warner. Macmillan and Co.
 The Economic Review, edited by Professor Edgworth, Part I. Macmillan and Co.
 An English-Telugu Dictionary, by P. Sankaranarayana, M.A. K. R. Press, Madras.
 The Trigonometry of One Angle, by Rev. J. B. Lock. Macmillan and Co.
 A Malayalam Anthology, edited by N. Sankunni Wariyar, B.A. Madras.
 General Report on Public Instruction in the North-West Provinces and Oudh, for the year 1889-90.
 Annual Report on Public Instruction in Mysore, 1889-90.

173

MAGAZINES.

London *Journal of Education*; *Educational Times*; The *Private Schoolmaster*; Boston *Journal of Education*; The *Christian College Magazine*; The *Bombay Educational Record*; *Progress*; *India's Young Folks* for June; The *Punjab Magazine* for March.

STUDENT LIFE AND ÆSTHETICS.

No one has yet made clear what is the connection between student life and æstheticism, or has been able to discover the impelling force which some years ago drove the under-graduate to adorn his mantel-piece—no, his over-mantel—with peacocks' feathers and cracked plates, while the same youth in the paternal home was barbarously unconscious of the purpose of any such article of furniture save as a receptacle for matches, cigar cases, invitation cards, and bills. But at college he loved to fill his rooms, as far as his purse or his credit allowed, with "Early English" chairs and tables—imitations for the most part—to try his sight with wondrous lamp shades, to wear crumpled collars and loose silk neckties, with the vague notion that he was thereby becoming a disciple of Art. The girl-student did all this and more. She draped both herself and her furniture in stuffs and silks of unfamiliar shades; she was rich in devices for covering every bit of wall-space with fans, photographs, and brackets; the tiniest window was enshrouded in "Art" muslin, which effectually obscured what little light there was; the fire-place was guarded by plush hanging, and the piano even did not escape the burden of decoration, but was made to serve as a shelf for flower-pots; every corner was filled with bulrushes, or huge plants whose spikes threateningly forbid familiarity; tables and stands, covered with fragile ornaments, made locomotion perilous, and frequently attended with accident to the unwary.

Of course, the æsthetic craze, like other waves of popular sentiment, swept people off their feet for a time, and landed them on a shore where flabbiness, disorder, and eccentricity were mistaken for elegance, grace, and beauty. Fortunately, we have returned now to the region of clearer vision, and our eyes are no longer blinded by the new lights. We are not going back to the fashions of a quarter of a century ago, to drawing-room "suites" in bright damask and gilt cornices, far from it; but we have learned how to combine comfort with beauty, and to make our rooms satisfy the artistic sense without sacrificing convenience and utility. Æstheticism no longer dominates the student, the student dominates it.

This fact is strikingly exemplified by a peep at the students' rooms at College Hall, Byng-place. This building, which began with one house, and is now composed of three, is designed for the reception of girls studying at University College. It shelters altogether some thirty young aspirants after fame in the paths of science, literature, and art. Once every year Miss Morison (the principal) and her coadjutors hold a grand reception, at which educationists, and the friends of educationists, literary and social workers, run across each other in the most unexpected and delightful way. This *omnium gatherum* of the forces of intelligence was held last Saturday afternoon. The weather was dull and threatening, and anything but spring-like; but within the hospitable walls of College Hall there was quite a May-day scene. Flowers, flowers everywhere, and bright dresses surmounted by brighter faces, greeted one at every turn. Here and there a student in gay attire, and *coiffée à la Grec*, could be seen snatching a few moments' talk with an acquaintance in a quiet corner; or piloting guests along the passages to the tea-room, where creature comforts were being dispensed to the large company with the ready assistance of many future B.A.'s.

But the great attraction—at least, to those who had not had the privilege of being present at these gatherings before—was upstairs. All the afternoon personally-conducted parties were making a tour of the students' rooms—wonderful apartments, serving as study, sitting-room, and bedroom combined. We purposely mention the bed last, because the usual adjuncts to a bedroom were, by cunning devices, rendered invisible. A pretty, opaque muslin curtain in one corner probably concealed the washing apparatus, since there was no other possible place for that necessary piece of furniture; while a sort of low couch, covered with an Eastern rug, stood in each room, and, no doubt, underwent a transformation at night, but otherwise there was no evidence that the mysteries of the toilet were performed in those exquisite interiors. Not a clock or a slipper, not a brush or a bottle, was visible, and although the rooms were, of course, prepared for visitors, they had that delightful air of ease and use which makes one feel at home in them at once. In some a fire was burning cheerily, and a comfortable, low chair drawn up to the hearth. A writing-table was a prominent feature in each, generally with a bookshelf in convenient proximity. Some of the students were the fortunate possessors of a Chippendale chest, with its pretty brass handled drawers; everyone had engravings on the walls, photographs and ornaments in profusion, little tables with afternoon tea-seats, softly-coloured muslin at the windows; in fact, all the accessories of a lady's sitting-room were present. Even the rooms at the top of the building with sloping

ceilings were so cleverly arranged and looked such pictures of comfort and quaint prettiness that they excited almost more admiration than the lower ones. Among the dwellers aloft is Rukhmabai, the Indian lady, whose career has awakened so much interest in this country. As for flowers, they were strewn about with lavish generosity—the fragrant narcissus, the sweet-smelling wall flower, and the delicate violet shed a delicious perfume, and made one forget the nipping east-wind without.

One cannot help admiring the uniform good taste and artistic sense displayed by these girls who are working so hard preparing for a professional career, and would not have leisure, one would think, for the care of externals. Evidently student life is favourable to the growth of the flower æstheticism. It matters not whether the student be following science, art, or literature, she revolts against the ugly and commonplace. Sometimes it would seem that the more serious and earnest a person's work is, the more they strive to surround themselves with tasteful objects. One would fancy that they would have no spare energy for objective trifles, such as furniture and clothes, and would be content to join with the Philistine host. Not so. The student is never a fashion follower; she goes out of her way to avoid that fickle dame; she invariably seeks after picturesque rather than conventional dress, and studies comfort before conformity. She cannot "live with" the typical modern lodging-house furniture, but loves to make her own nest, lined with her individual fancies. She turns to æstheticism because it is in opposition to those things a student naturally rebels against, viz., narrowness and uniformity, and because it gives wings to fancy and imagination.—*Echo*.

HINDOO MATHEMATICS.

By LEON DELBOS, M.A.

(From the *London Journal of Education*.)

We Europeans have such a high opinion of our intellect and attainments that it is sometimes good for us to be reminded of what our ancestors have achieved in the realm of thought, especially in Asia and Egypt.

Nothing can be more interesting than to bring our mind back to those centuries which we call the Dark Ages, an appellation which is only true when it refers to the state of Europe five, six, or ten centuries ago, and which cannot be rightly applied to the countries inhabited by the Hindoos and Arabs. We should always bear in mind that, at a time when Europe was plunged in the darkness of ignorance and superstition,

the Hindoos, the Arabs, and other nations of the East had made great progress in literature, in art, and in science.

My object in this paper will simply be to show that the Hindoos had attained a very fair knowledge of mathematical science at a time when Europe scarcely knew anything of it.

One of the most curious, as well as most interesting, works of the scientific literature of India is undoubtedly the *Bijaganitam*. The name of this book signifies "Computation by Arithmetic," and is formed from the words *Bija*, a seed, and *Ganitam*, computation; so that we might also say that *Bijaganitam* signifies "seed counting."

This work is due to the famous Hindoo mathematician, Bhaskara Acharya, who was born at Biddur, in the Dekkan, in the year 1036 of *Salwahana*, which corresponds to the year 1114 of our era.

We are indebted to the same author for the *Lilavati*, which is a treatise on Algebra and Geometry, and also for the *Siromani*, which treats of astronomical science.

The origin of the *Lilavati* is so poetical, and so little known in Europe, that our readers will no doubt forgive us for relating it as briefly as possible.

Bhaskara had a daughter, called Lilavati. Having noticed that the star which was rising at the time of the birth of his child indicated, in a most unmistakeable manner, that Lilavati was destined to remain unmarried, Bhaskara, in order to thwart destiny, chose a propitious hour to give his daughter in marriage, so that she might be properly married and have children.

When the chosen hour was nearly at hand, Bhaskara summoned before him his daughter and future son-in-law.

He took the little perforated cylinder which was then used in India to indicate the hours. This cylinder has an aperture in the lower part. It is placed in a vase containing water. This water gradually enters the hole, and at last the weight of the water which enters the cylinder causes the letter to sink.

Bhaskara, before placing his cylinder on the water, had secured the services of the most celebrated astrologer of his time; in order that the two young people might be united at the very instant when the cylinder which marks the hours should sink into the water of the lower vase.

But Bhaskara had reckoned without destiny, and things did not pass off as he had anticipated. Lilavati, who, like all the daughters of Eve, was very inquisitive, wished to see the water enter the little aperture of the cylinder. She approached the vase and did not notice that

one of the pearls of her bridal attire had detached itself and fallen into the cylinder.

The pearl found its way to the little aperture, and, being too large to pass through it, completely blocked the hole and prevented the water from penetrating into the cylinder.

It was in vain that the astrologer waited. The ingress of the water being prevented, the cylinder remained on the surface of the liquid, and the propitious hour passed away never to return.

The father was much grieved at this untoward occurrence, but he wisely acknowledged that struggling against fate was futile. He then turned to his daughter, whom he addressed in these words: "I shall write a book which will bear thy name, and which will endure for ages to come. A good name is a second life and is the foundation of eternal life."

If the European reader cannot repress a smile, he will do well to remember that Bhaskara lived eight centuries ago, and that at that time Europe was far more benighted than India, and let him not forget either that—in spite of the advancement of knowledge—credulity and superstition, and the belief in the influence of Saints and stars, and other things of the same sort, are still flourishing in our midst.

Before we enter upon an examination of Bhaskara's work, we will give a few particulars on Indian schools, and on the teaching of Arithmetic in the native schools, which are the only ones we are now alluding to.

When a Hindoo child enters a school for the first time, he performs the religious ceremony, known as the *Pati Puja*, or rite of the writing-board.

This writing-board is covered with *Gulal*, on which is drawn a picture of the Goddess *Sarasvati*. This effigy is then covered with perfumes, rice, sugar, betel nuts, palm leaves and flowers. Near it incense is burned, as well as a lamp, the flame of which has been perfumed with camphor.

The pupil makes a present of these things to the master, to whom he also gives a sum of money, a turban or other suitable presents, according to the position of his parents.

The master distributes the rice, sugar, nuts and flowers to his other pupils, then the new scholar prostrates himself before the writing-board

* *Sarasvati*—the goddess of learning, daughter of Brahmā and wife of Vishnu. Every Hindoo who can read and write celebrates her worship on the fifth day of the moon in January—February.

which represents Sarasvati, and the master writes on the board the words *Shri Ganesay nama. Om.*—that is to say, "Hail to thee, Ganesa! Om."*

Then the master places a properly cut reed in the hand of his pupil. He guides his hand and makes him trace several letters. The pupil then begins to learn his letters. The vowels come first and are followed by the consonants.†

When the pupil is more advanced, the writing-board, instead of being covered with pulverised brick or sand, is blackened. In that case, the letters and figures are traced with a mixture of chalk and water.

The pupil holds his reed as he pleases. He chooses the most convenient way, and generally keeps to it through life.

It must be noticed that the pupil learns at the same time to read, to write, and to pronounce the letters.

The writing-board we have spoken of is about 10 or 11 inches long by 8. In some parts of India a different colouring matter is used. In addition to the sand or brick or black paint, there are also boards painted white, and sometimes flour, coloured with a purple pigment, is sprinkled over it.

When a pupil joins a school, he is immediately placed near another boy whose studies are more advanced. This is a very generally used method in India. If the less advanced pupil does not do his work properly, his schoolfellow informs the master of the fact. The task of the master consists chiefly in seeing that every one does his work. From time to time he also asks questions, or makes a pupil repeat, in a loud voice, what he is supposed to have learnt.

This system gives excellent results.

When the pupil can write sufficiently well, he begins the study of numbers.

He is taught to count in the following manner: 1 *ek*, 2 *do*, 3 *tân*, 4 *châr*, 5 *panch*, 6 *chhah*, 7 *sath*, 8 *âth*, 9 *nâu*, 10 *das*.

When he can repeat and write these numbers correctly, he learns those from ten to twenty, and is taught to say:—

1 before 1 makes 11

1 " 2 " 12

1 " 3 " 13

* Ganesa.—The elephant-headed god of Wisdom. He is the Indian Janus. Om.—This word is prefixed to all Hindoo prayers. It is made up of the letters A U M; but as A + U = O by the phonetic rules of Sanskrit, the word Aum becomes Om. It represents the Indian Triad or Trinity: Brahmâ-Vishnu-Siva.

† This only applies to those parts of India where the dialects spoken are written in the Devanagari characters, such as Hindi. Where the Arabic alphabet is used, the alphabet is learnt in the ordinary order,—alif, be, pe, te, &c.

and so on up to twenty. Then he proceeds in a similar manner and says:—

2 before 0 makes 20

2 " 1 " 21

2 " 2 " 22

until he reaches 100.

When he has mastered these numbers, he is made to learn the *Pare* or multiplication table, which consists in multiplying the first ten numbers up to 30, and even up to 100.

These tables are all learnt by heart. Indeed, everything in an Indian school is learnt by heart and repeated aloud. No wonder that the memory of Hindoo scholars is prodigious.

After the *Pare* comes the *Pauke*, or table of "quarters," the *Nimke*, or table of "halves," and the *Pounke*, or table of "three-quarters."

These are followed by the *Sawake*, or table of "one-and-a-quarter," by the *Dvick*, or table of "one-and-a-half," by the *Arizke*, or table of "two-and-a-half," and by the *Outke*, or table of "three-and-a-half."

These tables are repeated in the following manner: "One time three-quarters makes three-quarters," "twice three-quarters make one-and-a-half," "three times three-quarters make two-and-a-quarter."

These tables are generally followed by those known as the *Akâke*, or table of 11, and the *Ekotri*, or table of squares.

It is not until the pupil has thoroughly mastered all these tables that he begins to learn the weights and measures, and that he enters upon the study of the ordinary operations of Arithmetic.

At the end of the day's work, the schoolmaster makes all the boys repeat some or other of these tables.

This exercise is generally performed in the following manner:—

All the pupils stand up. Then the master calls one of them up, who immediately advances and places himself in front of his schoolfellows. He then begins to repeat the tables in a loud and intelligible voice, and all the other scholars repeat after him.

The master generally chooses for that exercise the most advanced and intelligent boy in the school.

It is this system which enables the Hindoo to perform many arithmetical operations without any assistance but memory. I have seen some who could work out a double rule of three mentally and in a very short time. As for such things as additions and subtractions, or fractions, it is but very seldom that an educated Hindoo cannot perform those operations mentally.

(To be continued.)

COMPARISON OF FOREIGN EDUCATIONAL SYSTEMS WITH OUR OWN.

BY WELLFORD ADDIS, WASHINGTON, D. C.

When two neighboring nations have each for itself, mapped and surveyed their territory and then agree to connect them so as to include the two surveys in a single system, three preliminary steps must be taken before the situation of a point in one country can be ascertained with reference to the situation of a point in the other:

1. The origin selected by the one country must be compared with that selected by the other.
2. The direction of reference used by the one must be compared with that used by the other.
3. The standard of measure used by the one must be compared with that used by the other.

When the statistics, the methods and the organization of European systems of public schools are compared with our own not less necessary is it to compare the origin of the systems involved, their direction of reference, and their standards of measure.

The surprise of the Englishman when told by the son of one of our presidents that he and the son of his father's gardener attended the same school, illustrates a fact. In America the education of the people means the education of the people all together,—rich and poor, and other class distinction we have not unless in the case of the negro in the South. But in Europe "the education of the people" means the instruction of a class,—the peasantry. When Holyoke, the English socialist, spoke of the common people during an address in Brooklyn, a friend corrected him, saying: "We have a few uncommon people here, but no common people." In Latin countries the schools for the lower classes are called *écoles primaires* to give the French term while in Teutonic countries they are called *Volksschulen* to use the German name. The wealthy and the nobles go to the Lycée, the descendant of the old French University, or to the Gymnasium, the descendant of the German Cloister or Cathedral school, where they are admitted at the age of eight or nine, as is also the case with the English "Public school" which feeds their universities. The instruction of the people began with the Reformation and was fostered, to a great extent, if not entirely, by the necessity of having the laity read the Bible; because it was the people that carried through the reform of the Christian religion as the masses of the Roman Empire founded it. So undesirable was this perpetuation of caste by school life thought to be that the French Revolutionists proposed to found state boarding schools, where every child, no matter what his social condition, should be sent, and then there would be "*fraternité*" as well as "*liberté*" and "*égalité*."

Thus the education of the people in Europe is due to the Reformation, though even in the case of the education of the middle ages the object of the schools was to train persons to instruct the people, not as teachers but as preachers. Religion, then, has given Europe her people's schools. But what does this generalization imply? Undoubtedly that the first schools were under the authority of churchmen. As the French say, the schools were not laic. France has recently laicised her schools, and in Germany the pedagogical congress now in session is demanding that the teacher be no longer used as a sexton, bellringer, and clerk.

Was the origin of the American common school different from that of the European? The Puritan schools of the seventeenth century were undoubtedly motivated by religious feeling. The catechism was their primer and the Bible their reading book. But they were lay schools as far as the theocratic or rather bibliocratic democracy of the Puritan Commonwealth would permit. But the candid student of the history of education in this country must find the reason for the disavowance of ecclesiastical and public educational affairs to be the theories of local self-government and individualism which, operating negatively, made it necessary to frame the constitution to prevent anarchy, and yet had vitality enough to recover and crush the Federalists that had put the government upon its legs. Whether that individualism was imported with other English traits or was developed by the absence of the class and ecclesiastical control of Europe, and the ever present necessity of self-reliance and personal activity in a strange environment, is quite another question. This fact, however, is patent,—in Europe the schools are weighted, whether for good or evil is not material here, by an ecclesiastical incubus which we have not to contend with.

So much for difference of origin. Now for difference of direction.

In a work that has had the good fortune to be extolled by a man of letters like Macaulay, a practical philosopher like Mill, a prince of intrigue like Talleyrand, and a chronic grumbler like Carlyle, one of the causes of hatred is given as wounded pride. "Who ever does not adopt my opinion indirectly declares his very slight regard for my understanding. Such a declaration offends my self-complacency and shows me an adversary who not only openly testifies his contempt for my lights but who will propagate this contempt in the proportion that he can cause his opinion to triumph over mine." When this feeling is carried to its logical conclusion and especially when connected with the far more ignoble one of self-interest, the result is the persecution of the early church, the Spanish Inquisition, and Quaker hangings, when grown up people are concerned. But let it get hold of "ingenuous youth whose minds are like white paper or pliant wax," let the maxim be admitted that as is the teacher so is the school in more senses than one, and state interference and church interference may tend to choke out liberty of thought and discussion when occasion demands.

When the French wish to indicate instruction that is merely inspected but not immediately guided by the government, which has the monopoly of

instruction, they call it *l'enseignement libre*, the right to give such instruction *liberté de l'enseignement* and the schools in which it is given *écoles libres, facultés libres* (free schools, faculties etc.); especially when the instruction is given by "congregationists." Have we anything of this in America? Does the State interfere to say that such and such a doctrine shall be taught or even not taught in schools supported at public expense? If so it is a recent phenomenon.

In the German University, however, there is a *Lehr und Lehnenfreiheit*, but this is not a feature of the other schools, and was completely annihilated in the Prussian normal school by the celebrated Drei Praussischen Regulative of 1851.

So much for difference of direction. Now for the standard of measure.

Shall the instruction of the school, whether of elementary, secondary, or collegiate grade, be given for the purpose of making men capable of earning a living or of reasoning rightly and making the will of God prevail, which, according to the late Mr. Arnold, is the ideal of culture? Shall utility or culture prevail? Shall Latin go as Greek is going, and shall natural science and sociology take their places? These are well-worn questions in Europe as well as here. Collegiate education in Europe is going through a crisis which the late lecture of the German Emperor has tended not a little to hasten. But the standard of measure of which mention is made is something of far less intrinsic moment. Take the term "public school," or its synonym "grammar school," as used in England. How different is the idea conveyed by these words when heard by English and American ears. Eton, Harrow, and Rugby are different from the grammar grade of our American public school. The Germans have the district school (*Volksschulen*), the city school (*Bergenschulen*), and the continuation school which frequently holds its sessions in the evening and on Sunday (*Fortbildungsschulen*). The French have a higher primary school (*école primaire supérieure*), which is scarcely our high school. In Germany a university means a corporation for the purpose of giving instruction in philosophy, theology, medicine, and law; in France, it means the system of public schools from kindergarten to superior instruction, in Sweden it means an examining body, at Oxford a federation of colleges, in New York a state board, and in some parts of the country anything.

Again, in France, the course of secondary instruction leads to the bachelor's degree instead of a high school diploma, and the difference between the two forms of secondary instruction must be noted. This degree is given, not by the pupil's teachers, but by the faculty of letters, one of the five faculties of superior instruction which grants to their own students, in course, the higher degrees of Licentiate and Doctor. In Germany the Gymnasium, their college, grants a *Maturitätszeugnis* which is the necessary passport to the university which grants the degree of Doctor. Now the Lycée and the Gymnasium degree are not empty honors. They give the holder admission if desired to enter a branch of the public service. They

may, therefore, be said to be prospective not retrospective, indicating the completion of an intermediate stage rather than the completion of a final stage as with us. So important is the degree-conferring privilege deemed in France, that none but a state faculty can confer it, and it is the same in Germany. Commercial individuals and corporations say the French have neither the means nor the ideals that render the instruction they give of the highest grade and their degrees above suspicion. In America we know that a first-class college is only possible when largely endowed.—*Boston Journal of Education*.

THE RULING PASSION.

We take the following instructive paper from our English contemporary—*The Private Schoolmaster*.

It is not love: that has no place in the anatomy of the teacher, whose courting is confined to the Muses of respectable and undeniable antiquity. It is not wealth: what can Mammon have to do with one whose aim in life is to continually contemplate the young idea, and to ensure its shooting with ease and regularity. It is not fame: the Instructor of Youth has no desire to occupy, even in effigy, the giddy heights of a monument, and the world, with infinite tenderness and compassion, makes no attempt to force honours upon an unwilling recipient. The ruling passion is none of these—it is expressed in one word of five syllables—*Examination*. The teacher has been "examined" himself in his school-boy days; examined weekly, monthly, terminally, annually, and the process has continued steadily during his University career. He has been probed in Latin, dissected in Greek, minutely anatomised in Higher Mathematics. Did any question confront him in his student days the answer to which would necessitate much research in finding; did he stumble across any obstinate piece of "book work," unknown or almost entirely forgotten, where *x* and *n* figured in lengthy array down the page of "Todhunter's Larger," what was his first, his only thought? Not "Do I know it," but "Shall I get it?" How eagerly does he not seek in his undergraduate days the advice of the "coach" of great repute, so that he may get his copy of the prescribed author properly "marked," and thereby save himself from the labour of reading up two thousand lines instead of a carefully selected eight hundred—or less! With what assiduity does he not "cram" the selected "props" the evening before, or possibly the morning of the "examination," and with what scrupulous care does he not dismiss from his mind every item of knowledge that the "coach" has condemned by the "formula." "You won't get that," or by the hastily pencilled, but none the less deadly

abbreviation on the margin of the page "Ot.," which, it need hardly be explained, stands for "Omit this paragraph." The result of this careful instruction in the art of omission, this select information as to what he is *not* to read, has very possibly been a creditable "Pass"—much to the astonishment and disgust of some more studious but less well-informed acquaintance who has devoted much time and attention to the twelve hundred odd lines of the "classic" that did *not* supply any of the passages "set."

After three most pleasant years the *graduate* now bids a regretful farewell to his *alma mater*, and soon after accepts the appointment of *sous-maitre d'école*, with all the dignities, honours, remunerations, and *éclat* appertaining thereto. He may have a taste for teaching, or he may not; that is of small importance. If he cannot teach it is quite certain he can examine. Setting his first examination paper must be a really pleasurable experience in the life of a dominie. There is all the charm of novelty therein, and there is, too, the delicious sensation of doing to others exactly as he has been done to.

And yet it is not in the schoolmaster that the ruling passion manifests itself most strongly; nay, we are thankful to say that a decided reaction among teachers proper has set in against this rightly-named "craze." By teachers proper we would designate those who are actually engaged in imparting instruction, not in declaiming *ex-cathedra* "how it is done," in practical, hard, and dusty work with chalk and blackboard, not in essay writing on "Ars Discendi" in the privacy of a comfortable study. "Mr. Jones," says a Principal one day, "I intend, at the end of this term to have the school examined by Mr. Robinson, of—University. The examination for your class will embrace——." Then Mr. Jones duly notes the historical "period" for that term, the quality and quantity of the prescribed lines of Latin and Greek, the algebraical and Euclidean "limits," and various other points of importance. Mr. Jones dons cap and gown (if he be sufficiently distinguished academically) and proceeds to his class-room. He announces the certain coming of the outside examiner, and urges young and old to make good use of the advent season, and runs his pupils, by way of a preliminary canter, through the reign of Henry VI., which money-loving monarch has the honour of commencing "the special period." It may possibly be discovered that the two new boys, Box and Cox, possess a peculiar and undeniably "minute" knowledge of English History in general, their information on such points as the colour of William the Second's hair, the exact length of the arrow by which tradition asserts he met his doom, the garmentless condition of our rustic ancestors, the woad with which they

179
beautified their persons, and other invaluable facts of Constitutional History, being wonderfully precise—while such common-place details as the principles of the Feudal system, the policy of the Conqueror in his management of home affairs, and the gradual development of an English Parliament, have been evidently regarded by the youths as altogether unworthy of notice. But, as Mr. Jones remarks, this is of no consequence at all, since no questions will be set on any events happening before the year 1485. And if Box and Cox are "smart" boys, with good memories, they may very possibly head the list in the "History Paper," and thereby earn commendation pleasing to themselves, their parents, Mr. Jones, and the Principal. Yet this result is but the result of cram, and in his heart of hearts Mr. Jones sincerely regrets that the true teaching of History has to be replaced by such an eminently unsatisfactory substitute. Unless, indeed, he too has been overmastered by the Ruling Passion, and views his pupils as so many racers to be trained—at all costs—to cover short courses at the highest possible speed. To borrow further from the language of the turf, long-distance races must be viewed with disfavour, "staying" powers are at a discount, and brilliant performances are to be achieved even at the cost of utter collapse later on.

A clever coach will put his pupil into possession of "tips" for any given examination, and these must be made to take the place of that thorough grounding in the first principles of the subject that alone is worthy of the name of "teaching." Here is a case that has been supplied to us from a source which we have reasons for knowing is a perfectly reliable one. Two boys were being "worked up" for a certain well-known examination, which shall be, however, in the present instance nameless. They were being instructed in those familiar problems of which the following is an example: "A does a piece of work in twelve days, B in ten days; how long would they take to do it if they worked together?" The boys failing to grasp the ordinary method of common-sense reasoning as quickly as the exigencies of the case demanded, their tutor instantly came to their rescue. "The 'tip' for a problem like that," said he, "is to take the product of the times and divide them by the sum: thus the product of the numbers 12 and 10 is 120, and their sum is 22—hence the answer is $120 \div 22$ or $5\frac{10}{11}$." The youths were, naturally enough, delighted at this extremely short cut, and the remainder of the "examples" were solved with delightful ease and rapidity.

It is pretty generally acknowledged that the younger the examiner, and the newer he is to his work, the more "catchy" is the nature of his

paper. The form master (or mistress) may then with reason tremble for the innocents about to be led to sacrifice, and the youngsters who have been so carefully drilled and practised in the art of plain-sailing addition, subtraction, multiplication, and division, may find that there are things in heaven and earth not (as yet) dreamt of in their philosophy. The questions may be entirely on the most elementary aspects of the giant Arithmos, and yet the malice of a perverted ingenuity may contrive pitfalls of a deadly and insidious character. The young idea that can wrestle manfully with "Long Division," "Compound Multiplication," "Weights and Measures," and "Reduction," is apt to find an insurmountable difficulty in dividing 1s. 1½d. among two persons so that one may have a half-penny more than the other. Many weary attempts serve to convince him that if an extra half-penny is really necessary for the welfare of the more favoured individual, the sum at disposal must be increased to 1s. 1¾d., since the reunited moneys obstinately and invariably reach that amount. Valuable though halfpennies are, he would be willing to sacrifice one of his own coins on the arithmetical altar if peace of mind could be obtained thereby. Poor child! what relief he would experience in casting aside the tormenting puzzle, and crying—if only his innocence would allow him—with Mr. Mantalini, "The halfpenny be damned."

The "Fragment from Pinkerton Junior's Voyages in Examination Land" (in the September issue of *Education*), strikes us as being intensely amusing, while the following extract from it is particularly *à propos* of our subject:—"It was here that I heard of a wonderful people whose name I could not discover, but who, I was told, lived across the waters, and amongst whom there be neither man nor woman, boy nor girl, but only examiners and examinees—for so they are called. And at first I thought that examiner meant a man among that people, and examinee meant a woman. But when I heard that, without doubt, among them many examiners are also examinees, and therefore also many examinees examiners, I fell into much confusion . . . Imprudent, no man gaineth his living in that land by what he is able to do, but rather by what he proveth to an examiner he would be able to do, if he were called thereto . . . And whether they live in houses in that country I know not; but this much I know, that no man ever learneth how to build them, but only how to show his neighbour how to build . . . And so it is with all their trades."

In all seriousness it is time that measures should be adopted to keep this Ruling Passion in some sort of check. When failure to reach a required or an expected standard brings about boy suicide, it is plain that

some radical evil exists in an educational system. The spirit of emulation, the desire to excel, the keen aspiration to distinction, are all excellent in their way, but they are as really and truly stimulants as any of the various forms of alcohol, and when brought to extremes are capable of bringing about even more disastrous results. Mental proficiency is an allowable and laudable object of attainment, but it is dearly purchased by the loss—even in the slightest degree—of mental equilibrium. There is hardly an examination—even for boys, with whom, indeed, we are chiefly concerned—that is not, year by year, steadily increasing in difficulty. The Boy Bachelor of 1487 would hardly have been capable of obtaining the degree at London University in 1890 at the age of fifteen, even if the regulations as to age were relaxed in his favour. The London Examinations have always been notoriously severe, while those of other institutions, such as the College of Preceptors, are slowly, but surely, increasing in difficulty. We hasten, however, to speak a good word for Cambridge; the examinations for the "pass" degree at that University could do no harm to the feeblest intellect.

It is proverbially an easy matter to find fault, but a practical remedy for this, as for other evils, requires a good deal of discovering. To-day is the age of competition, and severity of standard in examination can alone ensure the survival of the fittest—the fittest, that is, to retain for a short period an enormous amount of crammed matter. *Primus inter pares* may do well enough as an ethical definition of an archbishop, but equality of any kind will not do for a competitive examination where there are Government appointments, perhaps, depending upon the result. A definite order of merit must somehow or other be established, and the problem for solution is how to obtain such an order and at the same time to keep the standard of knowledge required below what may be termed brain-fever point. We cannot be blind to the difficulty that exists, nor can we suggest, we are sorry to have to confess, any remedy that appears at all feasible; nor, indeed, would it be reasonable to expect to be able to do so when so many men of the greatest intelligence and widest experience have tried and failed. But we do say that unless something be done, and done quickly, the examination system will before long have to be given up. At the rate matters are progressing the rising generation of some future (and not very distant) epoch will either become prodigies of learning, or, breaking down under the terrific strain imposed upon them, will await, in semi-idiotcy, the only examination they can ever hope to pass—the *Post-mortem*.

UNIVERSITY OF MADRAS.

SUBJECTS FOR EXAMINATION.

MATRICULATION EXAMINATION—1892.

BRANCH II.—SECOND LANGUAGE.

Sanskrit.

Selections to be published by the University.

Greek.

Euripides. Electra (omitting the chorus).
Plutarch's Lives. Themistocles.

Latin.

Phædrus. Fables, bks. I. and III. (omitting bk. I. fables 18 and 29, and bk. III. fables 3 and 11).

Q. Curtius Rufus. De rebus gestis Alexandri, bk. IV., chaps. 1 to 42 (Chambers edition), or chaps. I. to X. (Tauchnitz edition, revised by C. H. Weise). Last words, "tam instus hostis, tam miseris victor."

Arabic.

Intiqab-e-Nafhat-ul-Yaman. Second half.
Nasir-ut-tullab. Second half.

Persian.

Muntakhabat-e-Farso. No. 4, omitting the poetry. (S.P.C.K. Depôt.)
Laili-e-manzumah. Second half. (Government Book Depôt.)

Urdu.

Muntakhabat-e-Urdu. No. 6. (S.P.C.K. Depôt.)

Shah Namah. Second half. (Noul Kishore Press, Lucknow).

Tamil, Telugu, Kanarese, and Malayalam.
Selections to be published by the University.

Urdu.

Prabandhamala (115 pages), by M. S. Rao.
Ramayana. Ayodhya-kanda (149 pages), by Fakir Mohan Senapati.

Marathi.*

Burmese.

Zenaka.
Dhamma Pada-ga-hita Selections. (Rangoon Mission Press, 1873.)

French.

Florian. Choix de Fables, by M. Rogier. (Librairie Classique, Eugene Belin.)
Xavier de Maistre. Voyage autour de ma Chambre.

German.

Theodor Körner. Zriny.
Schiller. Geschichte des dreissig-jährigen Krieges, part I.

BRANCH IV.—PHYSICS AND CHEMISTRY.

(a) Elements of Physics. Balfour Stewart's Physics (Science Primer Series).

(b) Elements of Chemistry. Roscoe's Chemistry (Science Primer Series).

FIRST ARTS EXAMINATION—1893.

BRANCHES I. AND II.—LANGUAGES.

English.

Shakespeare. The Merchant of Venice.
Tennyson. Gareth and Lynette.
Scott. The Talisman.

Sanskrit.

Sakuntala. Acts 1 to 5, (omitting Prakrit passages).
Sakuntalavijay. Chaps. 1 and 2, (Madras edition).

Greek.

Sophocles. Philoctetes.
Demosthenes. De Corona.

Latin.

Vergil. Georgics, bk. II.
Horace. Satires, bk. II., (omitting satires 3, 5, and 7).Cicero. Pro Archia.
Sallust. Bellum Jugurthinum, from chap. 51 to the end.

Arabic.

Nafhat-ul-Yaman. Chaps. 1 and 2.
Al-Laila. 31 to 50 nights.

Persian.

Anvar-e-Suhaili. Chaps. 1, 2, and 3.
Devan-e-Saqib. (Nizam-ul-matabi, Madras.)

* Will be notified shortly.

Urdu.

Bustan-e-Hikmat. Chaps. 1, 2, and 3.
Devan-e-Asir to the Radif of Dal.

Tamil.

Bharatam. "Virataparvam, Niraimitchi Sarukkam."
Karuvaiippadittupattandadi.
Periyapurana-vachanam, by Arumukha Navalar. Vambara-varivanduchcharakkam.
Naladiyar. Chaps. 1 to 5.

Telugu.

Bharatamu. Aranyaparvamu.
Naganandamu, by Venkataraya Sastri.
Manucharitramu. Asvasas 3 and 4.

Kanarese.

Nalopakhyaanam.
Jaimini Bharata, sandhis 17 to 21.
Srikrishnarayanavilasa. Sabhaparva, the first 62 pages, (published by Rudrappa and Sons, Bangalore).

Malayalam.

Valmiki Ramayanam Balakandam.
Toranayuddham Kathakali.
Janakiparinayana, auktas 4 to 7.

Urdu.

Ramayana. Sundarikanda. (Translation of Valmiki Ramayana, by Fakir Mohana Senapati.)
Charupatha Part I.

Marathi.

Venisambhara, by Godbole.
Harivamsa of Moropant. Chaps. 10 to 13.
Navanita, Marathi Anthology, by Godbole.
The first 77 pages or to the end of Tukaram.

French.

Boileau. L'Art Poétique; chants III. & IV.
Racine. Britannicus.
Massillon. Petit Carême.
Bessnet. Oraison funèbre de Louis de Bourbon, Prince de Condé.

German.

Goethe. Iphigenie auf Tauris.
Schiller. Egmont's "Leben und Tod," and "Die Belagerung von Antwerpen" from "Die Geschichte des Abfalls der vereinigten Niederlande" (Clarendon Press Series).

BRANCH IV.—PHYSIOLOGY OR PHYSIOGRAPHY.

(a) Physiology—Huxley's Elementary Lessons in Physiology, chaps. I. to VII.

BRANCH V.—HISTORY.

(a) and (b) Schmitz's Ancient History.

B.A. DEGREE EXAMINATION—1893-94.
LANGUAGE BRANCH.

English.

Chaucer. The Knight's Tale, lines 1 to 629.
Shakespeare. Twelfth Night.
Collins. Ode to Evening and the Passion.
Shelley. Adonais.
Gibbon. Decline and Fall of the Roman Empire, chap. LVI.
George Eliot. Silas Marner.
Collins. Virgil. (in ancient classics for English readers).

Persian.

Waqai-e-Niamat Khan.
Qasid-e-Badr Chach.

Urdu.

'Ud-e-Hindi. (Noulkishore Press, Lucknow).
Devan-e-Ghalib.

Tamil.

Kambaramayana. Kishkindakandam, from the beginning to the end of Dundupippadalam.
Pattupattu. Nedunalvadi.
Kural, chaps. 86 to 90, with Parimelazhagar's urai.
Azhagarkalam-bagam.
Tiruvilaiyadal, padalams 52 to 56.
Seyyuliyal, as in Ilakkanavilakkam (specially edited by Mr. C. W. Tamotharam Pillai).

Telugu.

Pandurangamahatmyamu, asvasa 1.
Kalapurudayanamu, asvasa 2.
Kavyalankarachudamani, cantos 2 and 3, (by Vinnakota Poddanna).
Bharatabhyudayanamu, asvasas 1 and 2, (by Madabushi Venkatacharyar).

Sanskrit.

Uttararama-haritra.
Harshacharitra, chaps. 1 to 3.

Greek.

Homer. Iliad, bk. I.
Sophocles. Antigone.
Plato. Phædrus.

Latin.

Plantus. Trinummus.
Juvenal. Satires 13 and 14.
Tacitus. Annals, bk. XII.
Cicero. Tusculan Disp., bk. V.

Arabic.

Ajab-ul-ujab.
Mutanabbi, pages 147 to 292. (Bombay edition).

Kanarese.

Pamparayama, asvasas 10 and 11.
Vishabhendravijaya, sandhis 1 to 4.
Jagannathavijaya, asvasa 1.
Girijakalyana, asvasas 1 to 3.

Malayalam.

Bharatam. Sambhavparvam, from Kachopakhyanam to the end.
Bhagavatam. Dasamaskandham, from the beginning to the end of Vatsasteyam.
Urvasisvayamvaram.
Vyomasuravadham. Kathakali.

Uriya.

Brief Sketch of Europe.
Ramayana. Ayodhyakanda.
Nitibodh, (C. S. B. Society's edition).

Marathi.

Muktesvara's Ramayana, canto VII.
Vamana's Namasudha.
Moropant's Brihaddasama, chaps. 1 to 14.

French.

Delille. Les Géorgiques, chants I. and II.
Jean Racine. Les Plaideurs.
Montaigne. Extraits, par M. Eugène Réaume, (Librairie Classique, Eugène Belin).
Montesquieu. Considérations sur la grandeur et la décadence des Romains.

German.

Schiller. Wallenstein's Tod.
Goethe. Faust, Part I.
Lessing. Laokoon, oder über die Grenzen der Malerei und Poesie.
Hauff. Lichtenstein.

OPTIONAL BRANCHES.**Branch II.**

- i. (a) Balfour Stewart's Lessons on Elementary Physics.
(b) Valentin's Inorganic Chemistry. Miller's Elementary Chemistry. Jones' Owen's College Junior course of Practical Chemistry.
- ii. (A) (a) Todhunter's Mechanics for Beginners.
(b) Ganot's Elementary Treatise on Physics. Duschanel's Natural Philosophy.
- iii. (B) Fowne's Manual of Chemistry, last edition. Valentin's Qualitative Analysis.

Branch III.

[The text-books mentioned in this branch are merely recommended to students; the examination will not necessarily be confined to them.]

- i. Huxley and Martin's Elementary Biology, 1888 edition. The article "Biology" in the 9th edition of the Encyclopædia Britannica (reprinted in Huxley's Invertebrata).
- ii. (A) Prantl and Vine's Text-book of Botany. Sach's Text-book of Botany, 2nd edition. Asa Gray's Botanical Text-book, 6th edition. Oliver's First Book of Indian Botany. Practical Botany by Power and Vine.
- iii. (B) Foster and Langley, Practical Physiology. Hand-book of the Physiological Laboratory. Ferrier's Functions of the Brain. Foster's Text-book of Physiology. Bell's Comparative Physiology and Anatomy. Klein's Elements of Histology, or Schäfer's Essentials of Histology. Power's Human Physiology.
- iv. (C) Claus's Text-book of Zoology, English translation. Gegenbaur's Elements of Comparative Anatomy. Marshall and Hurst, The Frog, 3rd edition. Marshall and Harst, Practical Zoology, 2nd edition. Wiedersheim's Comparative Anatomy of Vertebrates. Huxley's Anatomy of Vertebrates. Certain of the Zoological articles in the Encyclopædia Britannica, 9th edition, may also be read with advantage.
- v. (D) Geikie's Text-book of Geology. Medlicott and Blanford's Manual of the Geology of India, or failing that, Blanford's reprint of the Introductory Chapter to the same. Nicol's Elements of Mineralogy. Nicholson's Manual of Palæontology. Geikie's Field Geology.

Branch IV.

- ii. History of Philosophy.—The Sophists (the scope defined by Zeller's treatment of the subject in his *Pre-Socratic Greek Philosophy*).
- iv. History of Ethics.—Aristotle's *Nicomachean Ethics*.

Branch V.

- ii. (a) Maine's Ancient Law. Early History of Institutions and Village Communities.
(b) P. V. Smith's History of English Institutions. Craiss's Constitution of the British Empire. Stubbs's Select Charters, part I.
- iii. The Student's Gibbon; Bryce's Holy Roman Empire.
- iv. (a) The Formation and Consolidation of the Constitution of the United States, 1770-1790.
- vi. Fawcett's Manual of Political Economy, bk. I, chaps. 1 to 8; bk. II, chaps. 1 to 7 and chaps. 12; bk. III, chaps. 1 to 13; bk. IV, chaps. 1 to 7.

182

M.A. DEGREE EXAMINATION—1894.**BRANCH I.**

(b) viii. Lloyd's Lectures on the Wave Theory.

BRANCH II.

- (A) Physics.—The standard in Physics to be that of the Honours examination for the B.Sc. degree of London University; in Mixed Mathematics, that of Natural Philosophy for the B.A. degree examination, Madras, Astronomy being excluded; in Chemistry, that of Optional Chemistry for the B.A. degree examination, Madras, Organic Chemistry being excluded.
- (B) Chemistry.—The standard in Chemistry to be that of the Honours examination for the B.Sc. degree of London University; in Physics, that of Optional Physics, for the B.A. degree examination, Madras.

BRANCH III.

The standard in Botany, Physiology, Zoology, and Geology to be that of the Honours examination for the B.Sc. degree of London University.

BRANCH IV.

- i. The following additions to, or special studies in, the course for the B.A. degree:—
 1. *Psychology and General Philosophy*.—Theories of Pleasure and Pain. The Genesis of Disinterested Benevolence. The Ultimate Analysis of the Laws of Association. Spencer's Doctrine of the Absolute.
 2. *Logic*. Demonstration and Necessary Truth. Analogy. The Scope and Application of Mill's Inverse Deductive Method.
 3. *Ethics*. The Sanctions of Morality. Casuistry. The Ethics of the Bhagavadgita.
- ii. 1. *Psychology and General Philosophy*.—The Scottish Philosophy of Common Sense.
2. *Logic*.—A comparison between the Inductive Methods as expounded by Bacon and the Inductive Methods used in scientific investigation at the present day.
3. *Ethics*.—The Intellectual Theory of Morals considered as a protest against Hobbes.
- iii. 1. *Psychology and General Philosophy*.—David's *Philosophy of Kant* (Introduction and Part First).
2. *Logic*.—Jevon's *Principles of Science*, bks. IV. and V.
3. *Ethics*.—Leslie Stephen's *Science of Ethics*.

BRANCH V.

- i. Ancient Egypt to the Persian Conquest.
- ii. The Rise and Progress of Muhammadanism up to 750 A.D.
- iii. The Unification of Italy.
- iv. The Presidency of Fort St. George, 1639-1772.
- v. The Rise and Development of Representative Government in England.
- vi. South Indian Numismatics.
- vii. Lawrence's Hand-book of International Law. Lawrence's Essays on some disputed questions in International Law. Hall's International Law.
- viii. Smith's Wealth of Nations, bk. I, chaps. 1 to 5, 10, and 11; bks. III. and IV. J. S. Mill's Political Economy. Bagehot's Lombard Street. L. Cossa's Guide to Political Economy. J. E. Cairne's Leading Principles.

BRANCH VI.

- i. Sayce's Principles of Comparative Philology and Introduction to the Science of Language. [The examination will not necessarily be confined to the books recommended].
- iv. Text-books.

English.

- | | |
|--|---|
| Anglo-Saxon Chronicle, as in Sweet's Anglo-Saxon Reader, fifth edition, (Clarendon Press), selections I., VI., VII., VIII., XVII., XVIII., and XXII. | Shelley. Prometheus Unbound. |
| Langland and Barbour, as in Morris and Skeat's Specimens of Early English, part II. (1298-1393), pp. 175-211. | Tennyson. The Princess. |
| Chaucer. The Man of Law's Tale. The Clerk's Tale. The Squire's Tale. | Browning. Men and Women. |
| Spencer. The Shepherd's Calendar. | Bacon. The Essays. |
| Ben Jonson. Every Man in his Humour. | Milton. The Tractate on Education. |
| Shakespeare's The Tempest. Richard II. Antony and Cleopatra. Othello. | Johnson. Lives of Cowley, Savage, Swift, and Gray. |
| Milton. Samson Agonistes. Sonnets. | Addison. The Coverley Papers in the Spectator. |
| Wordsworth. The Excursion. | Burke. Letters to the Electors of Bristol. |
| | Scott. The Pirate. |
| | Hallam. Introduction to the Literature of Europe, chaps. V., VI., and VII. of part II. and of part III. |
| | Carlyle. Lectures on Heroes and Hero Worship. |

Sanskrit.

Rigveda, sukta 1 to 36.
Yaska Nirukta.
Apastambagrihyasūtra.
Manusmṛiti, chaps. 1 to 4.
Sukranitisara, chaps. 1 to 3.
Kadambari.
Mṛicchhakatika.
Malatimadhava.
Tarkasāgara, with Annambhatta's Tarkadipika.

Greek.

Æschylus. Choephore.
Sophocles. Philoctetes.
Euripides. Bacchæ.
Herodotus, bks. I. and II.
Thucydides, bks. IV., V., and VI.
Aristotle. Ethics, bks. I., II., and III.

• DRAVIDIAN LANGUAGES.**Tamil as First Language.**

Chintamani, Namagalilambagam.
Silappadhikaram, Pūgarikandam.
Periyatirumozhi, stanzas 1 to 300.
Tevaram, 49 Padikams in Talavarisai, from Koyil to Venupuram.
Prabulingalil, from the beginning to the end of Prabhuthavarvanda gati.
Thayumanavar Padal, from the beginning to the end of Sukhavari.
Tiruvarangakkalambagam.
Kambaramayanam, Araniyakandam.
Nannul, the whole, with Viruttirai for Ezhuttadhikaram.
Tolgappiyam, Solladhikaram, with the nrai of Senavaraiyar.
Karigai, the whole, excluding Ozhibiyal.

Tamil as Second Language.

Ramayana, Araniyakandam, stanzas 1 to 400.
Nannul, Perariyal, Vinaiyil, and Poduvil, with Kandigaiyurai.
Kural, first twenty adhikarams, with Parimelazhaganrai.
Bharatam of Veliputturar, Virataparvam, the whole.

Telugu as First Language.

Appakaviyam, (Prosody and Rhetoric).
Narasabhapaliyam.
Nannayabhattiyamu.
Andhrabhasiashabnamamu.
Vishnuchittiyamu asvasas 1 to 3.
Vasucharitramu, asvasas 1 and 5.
Bharatamu, Virataparvamu.
Ramanthyndayamu, asvasa 1.
Kavijanaarjasaṁtu.
Bhagavatamu, skandhas 1 and 2.
Harivamsamu, asvasas 1 to 4.

Telugu as Second Language.

Narasabhapaliyam.
Nannayabhattiyamu.
Vishnuchittiyamu.
Vasucharitramu.
Ramanthyndayamu.

Plato. Crito.
Demosthenes. Olynthiacs, I. and II.
Aristophanes. Peace. Plutus.
Homer. Iliad, bks. I., II., and III.

Latin.

Vergil. Æneid, bks. VII., VIII., and IX.
Horace. The Satires.
Lucan. Pharsalia.
Juvenal. From the 7th satire to the last, omitting the ninth.
Martial. Epigrams, bk. I.
Tibullus. The whole.
Terence. Andria.
Plautus. Menæchmi.
Cicero. In Verrem, orations III., IV., & V.
Seneca. Epistolæ XCIV. to CX.
Livy, bks. 1 to 5.
Tacitus. Annals, bk. I. Histories, bk. I.

Kanarese as First Language.

Sabdamanidarpana, with the Commentary of Nishithurasaṁjaya, (Kittel's edition).
Pamparamayana, Balakanda, five chapters.
Kavyavalokana, Alankaraprakaraṇa, (Mysore edition).
Jagannathavijaya, asvasas 1 to 3.
Rajasekharavilasa, asvasas 1 to 4.
Nagavarmana. Chhandassu.
Vrishabendra vijaya, asvasas 1 to 3.
Kalavati parinaya.

Kanarese as Second Language.

Sabdamanidarpana.
Sabarasankaravilasa.
Pamparamayana, asvasas 1 to 5.
Jagannathavijaya, asvasas 1 to 3.
Kavyavalokana.

Malayalam as First Language.

Vaṇikiramayanam, Ayodhyakandam.
Bharatam, Virataparvam and Bishmaparvam.
Adhyatmaramayanam, Kishkindhakandam and Sundarakandam.
Bhashanaishadhachampu.
Krishnagatha, by Cheruseri Namburi, Riturvarnamam.
Bakavadham, Kottayattu Keralavarina Tamburan.
Kalyanasaugandhikam Kathakali.
Nalacharithram, Kilippattu.
Dakshayagam, Kathakali.
Prabhadacharitam.
Bhagavatam, Dasamaskandham.

Malayalam as Second Language.

Bharatam, Virataparvam and Bishmaparvam.
Adhyatmaramayanam, Kishkindhakandam.
Bhashanaishadhachampu, second half.
Vetalacharithram.
Krimuairavadham.
Kalakeyavadham.
Nalacharithram, by Unnaiyariy, the last two days' play.
Prabhadacharitam.

L.T. DEGREE EXAMINATION—1893.**II. History of Education.**

The Development of the Educational System of India from 1854 to 1885.

B.L. DEGREE EXAMINATION—1894.

Equity Jurisprudence. Snell's Principles of Equity. Story's Equity Jurisprudence.
Hindu Law. Mayne on Hindu Law and Usage.
Muhammadian Law. MacNaughten's Principles and Precedents of Muhammadian Law.
Criminal Law. Mayne's Commentaries on the Indian Penal Code.
General Jurisprudence. Lindley's Introduction, Part I., excepting chaps. 4, 5, and 6; part II., chaps. 1 and 2 and the 1st division of chap. 3, with the corresponding notes of the Translator in the Appendix.
Theory and Law of property. Stephen's Commentaries on the Laws of England, the Introduction excepting section IV., bk. I, bk. II, part 1, excepting chapters XIX., XXI., XXII., and XXIV., bk. II, part 2, excepting chap. V.
Contracts. Pollock on Contracts.
Torts. Collett on the Law of Torts and Measure of Damages.
Evidence. Best's Principles on the Law of Evidence and Stephen's Introduction to the Indian Evidence Act.

M.L. DEGREE EXAMINATION—1894.

The text-books recommended to candidates for the M.L. degree, in addition to those recommended in the corresponding subjects for the B.L. degree, are—
General Jurisprudence.—Austin's Jurisprudence.
Theory and Principles of Legislation.—Bentham's Theory of Legislation.
Mercantile and Maritime Law.—Smith's Compendium, by Dowdeswell. MacLachlan's Treatise on the Law of Merchant Shipping. Tudor's Leading Cases on Mercantile and Maritime Law. Arnould's Marine Insurance.
The Theory and Law of Property and Obligations.—Williams' Principles of Real Property. Williams' Principles of Personal Property. Lewin on Trusts. Dart's Vendors and Purchasers. Goddard on Easements. Smith's Leading Cases on Common Law. White and Tudor's Leading Cases in Equity. Bigelow's Leading Cases on Torts.
The following Cases from Tudor's Leading Cases on the Law of Real Property:—Attorney-General v. Sir George Sands. Bowle's (Lewis) Cases. Cadell v. Palmer. Bradley v. Peixoto. Clund's Case. Doe Hiscock v. Hiscocks. Forbes v. Moffat. Morley v. Bird. Richardson v. Langridge. Rouse's Case. Seymour's Case.
Constitutional History.—Hallam's Middle Ages, chap. 8. Hallam's Constitutional History. Bagehot's English Constitution. Dicey's Constitutional Law.
Roman Law.—Saudar's Justinian. Lord Mackenzie's Studies on Roman Law.
Private International Law.—Wharton.
Public International Law.—Hall.
Hindu Law.—The Mitakshara and the Dayabhaga. (Stokes' Hindu Law Books). Leading Cases decided by the High Courts of Bengal, Madras, Bombay, and Allahabad, and of the Privy Council. Maine's Ancient Law.

L.S.Sc. DEGREE EXAMINATION—1894.

Chemistry. Roscoe's Lessons in Elementary Chemistry. Wanklyn's Water Analysis. Hassall on Food and its Adulterations.
Physics. Balfour Stewart's Elementary Physics. R. A. Scott on Elementary Meteorology. Buchan's Hand-book of Meteorology. Atkinson's Ganot's Natural Philosophy for Beginners.
Sanitary Law. Manuals for Public Officers of Health and Hand-book for Inspectors of Nuisances, by Michael Carfield. Wanklyn's Manual of Public Health, edited by Ernest Hart. The different Sanitary Acts passed by the Government of India. The Sanitary Clauses of the Penal Code.
Vital Statistics. Parkes' Manual of Practical Hygiene. King's Manual of Hygiene. Article on Medical Statistics in the Cyclopaedia of Anatomy and Physiology. Report of Famine Commission. Madras Census Reports of 1871 and 1881.
Sanitary Engineering and Sanitation. Latham's Sanitary Engineering. Haskool's Water Works, Sewers, Sewerage, and Irrigation. Krepp's Sewerage Questions. Carfield on Dwelling Houses. Galton on the Construction of Hospitals. Jones' Manual for District and Municipal Boards.

PROCEEDINGS OF THE DIRECTOR OF PUBLIC INSTRUCTION.

Programme of Tour of Inspection for 1891-92.—Read the following letter from the Inspector of Schools, Northern Circle, to the Director of Public Instruction, dated Rajahmundry, 6th April 1891, No. 250-D :—

I have the honor to submit the following programme of my tour of inspection for 1891-92, for your approval and sanction :—

April 1891.

Examination in Teaching Power of Secondary Lower and Primary Higher Grade students of the Rajahmundry Normal School. Board High School, Amalapuram.

July 1891.

Municipal High School, Kurnool. Local Fund Normal School, Nandyal.
S.P.G. High School, Nandyal.

August 1891.

Sanskrit High School, Guntur. Noble College, Masulipatam.
A.E.L. Mission College, Guntur. Hindu High School, Masulipatam.
A.B. Mission Training Institution, Bapatla. Local Fund Normal School, Masulipatam.
C.M.S. High School, Beavada. C.M.S. Preparandi Institution, Masulipatam.

September 1891.

C.M.S. High School, Ellore. Rajahmundry High School.
Taylor High School, Narsapur. Pithapuram Rajah's College, Cocanada.

October 1891.

Local Fund High School, Yellamanchili. London Mission High School, Vizagapatam.
Municipal High School Anakapalle. St. Aloysius' High School, Vizagapatam.
Hindu College, Vizagapatam. Local Fund Normal School, Vizagapatam.

November 1891.

Maharajah's College, Vizianagaram. Zemindari High School, Parlatimedi.
Samastanam High School, Bobbili. Municipal High School, Chicacole.
Local Fund Normal School, Palkonda. Local Fund Normal School, Chicacole.
Government Normal Class, Ganapur. Municipal High School, Chinlapatam.

January 1892.

A tour through Gootur Maliahs.

February 1892.

Government Normal School, Russellkonda. Local Fund Normal School, Berhampore.
Native College, Berhampore.

Offices of Assistant and Sub-Assistant Inspectors will be examined during the year, as well as some Middle and Primary schools in each Sub-Assistant's range in the Circle.

2. The differences between this programme and last year's are explained below :—

Work is posted for April instead of for June in the current year. Last year it was found that no school was ready for inspection in June owing to the summer vacation having extended in several cases to the middle of that month. The Samastanam High School, Pithapuram, has been closed and a Middle school established in its stead. It does not therefore appear in the above list.

The programme is sanctioned.

2. It is presumed that the examination of the Board Normal School, Rajahmundry, will not be limited to examination of Normal students for certificates.

(A true Extract.)

(Signed) H. B. GRIGG,

Director of Public Instruction.

EDUCATIONAL NOTIFICATIONS.

Fort St. George Gazette, June 16th, 1891.

APPOINTMENTS.

The Upper Subordinate Educational Service, Scholastic Branch will be constituted as follows :—

Grade.	Rank.	Name of Officer.	Designation of Post.	Nature of appointment.
First Grade.	1	Mr. J. Moss, B.A.	Headmaster, Mangalore College.	Permanent.
	...	Mr. C. C. Flanagan, M.A.		Acting during Mr. Moss' employment on other duty.
	2	M.R.Ry. S. Seshayya, B.A.	First Lecturer, Kumbakonam College.	Permanent.
	3	Mr. J. M. Hensman, B.A.	First Lecturer, Rajahmundry College.	Do.
Second Grade.	4	Miss Pratt*	Superintendent, Presidency Training School for Mistresses.	Do.
	1	Mr. E. H. Elliot, B.A.	First Senior Assistant Professor, Presidency College.	Permanent.
	2	M.R.Ry. B. Hanumantha Rao, B.A.	Second Lecturer, Kumbakonam College.	Do.
	3	M.R.Ry. J. M. Velu Pillai.	First Assistant, Teachers' College.	Do.
	4	Mr. S. Sathianadhan, M.A., LL.B.	Assistant to the Director of Public Instruction.	Do.
	5	Mr. T. R. Scott, B.A.	Second Lecturer, Rajahmundry College.	Do.
Third Grade.	6	M.R.Ry. Vaidyanatha Aiyar, M.A.	Headmaster, Calicut College	Do.
	1	Mr. P. E. Messinier	Second Assistant, Teachers' College.	Do.
	2	M.R. Ry. M. Seshagiri Sastriyar, M.A.	Second Senior Assistant Professor, Presidency College.	Do.
	3	M.R.Ry. K. S. Rama Rao, B.A.	Third Lecturer, Kumbakonam College.	Do.
	4	M.R.Ry. G. Krishna Prabhoo, B.A.	First Assistant, College of Agriculture.	Do.
	5	M.R.Ry. M. Rangachariar, M.A.	Third Lecturer, Rajahmundry College.	Do.
	6	Conductor W. Cames	Instructor in Engineering, College of Engineering.	Do.
	7	M.R.Ry. S. Ramadas Aiyar, B.A.	Fourth Lecturer, Kumbakonam College.	Do.
	8	M.R.Ry. S. Mangesha Rao, B.A.	Third Senior Assistant Professor, Presidency College.	Do.
	9	Sergeant W. H. Goddard	Instructor in Surveying, College of Engineering	Do.
	10	Mr. W. L. Bower, B.A.	Headmaster, Madras-i-Azam	Sub. pro tem.

*Miss Pratt will continue to draw her present pay and allowance untill further orders.

List of Subscriptions received on account of the
Madras "Journal of Education," from
1st to 30th June 1891.

	RS.	A.	P.
Head Master, Board Middle School, Kodavayur ... for 1891	4	8	0
Mr. N. Ragavendra Row, Udipi ... do.	4	8	0
Head Master, Board Middle School, Cherpalcherry from May 91 to April 92.	4	8	0
President, Taluk Board, Negapatam ... for 1891	4	8	0
Mr. C. Shadagopa Charry, Head Master, Regtl. School, Bangalore ... do.	4	8	0
Mr. Ambrose St. Thomas, Head Master, C. M. S. High School, Mengnanapuram ... do.	4	8	0
Head Master, Upper Middle School, Bhiri, Murshidpoor ... do.	4	8	0
Mr. G. A. Cavallure, S.J., Calicut ... from June 90 to May 91.	4	8	0
Secretary to the Commissioner for the U.C.S. Examination, for 1891	4	8	0
Principal and Secretary, Lawrence Asylum, Ooty ... do.	4	8	0
Mr. B. Achannachar Kandavarapata, Chickaballapur ... Bangalore ... for May 91	0	9	0
President, Taluk Board, Rapelli:—			
For President, Taluk Board, Rapelli ... for 1891	4	8	0
„ Head Master, Middle School, Rapelli. ... do.	4	8	0
„ do. do. Tennalli ... do.	4	8	0
„ do. do. Bapatla ... do.	4	8	0
„ do. do. Kollur ... do.	4	8	0
J. Thompson, Esq., Cottayam ... do.	4	8	0
Rev. P. J. Baptist, Pallaveram ... do.	4	8	0
H. J. Scudder, Esq., B.A., Ranipet ... do.	4	8	0
P. Vijiarungam, Moodelliar ... do.	4	8	0
A. F. Sealy, Ernacolum ... do.	27	0	0
Rev. E. Sell ... do.	4	8	0
K. Narain Iyengar, Mysore ... do.	4	8	0
J. M. Thomson, Warriore ... do.	4	8	0
R. Bosshardt, Terur ... do.	4	8	0
Miss A. De Rozario, Tellicherry ... do.	4	8	0
„ A. C. Donnelly, Trevandrum ... do.	4	8	0
G. Sankaran Pillai, Madras ... do.	4	8	0
Secretary, Imad-ud-Dowla, Reading Room, Gulbarga ... do.	4	8	0
A. Mutayyaga Iyer, Erode ... do.	4	8	0
President, Taluk Board, Salem ... do.	4	8	0
N. Panchapegasa Iyer, Tanjore ... do.	4	8	0
G. V. Subbarayadu ... do.	4	8	0
President, Taluk Board, Ranipet ... do.	4	8	0
Head Master, Board Middle School, Angatipuram ... do.	4	8	0
B. Amirdam, Tanjore ... for July 1891 to June 1892	4	8	0
Lady Superior, Calicut ... do.	4	8	0
Total Rs.	185	1	0

185



The

Journal of Education

Madras

Vol. V.]

AUGUST, 1891.

[No. 8.]

CHANGE OF EDITORSHIP.

We beg to call the attention of our Readers to the fact, that Mr. C. M. Barrow, M.A., has severed his connection with this Journal as its Proprietor and Editor. Under his able guidance the Journal has been kept well above water during the last few years, and its success as the leading Educational Journal in India is now assured. We have undertaken the duties of Editor not without much diffidence, and with a full sense of the responsibilities which those duties will involve. We are resolved to spare no effort to render the Journal as efficient as possible, and to make it a worthy exponent of the educational life of this Presidency; and we shall endeavour to make it serve none but the highest purpose. While devoting most of its pages to matter of special interest to this Presidency, we shall at the same time endeavour to keep our Readers well in touch with the educational doings of the civilised world in general. For this purpose we shall attempt to enlist the sympathy and active co-operation of friends to Education in England and

elsewhere. But in the main we shall have to depend upon friends nearer home for sympathy and support. There are many persons of culture and of comparative leisure engaged in educational work in this Presidency, who could do incalculable good by enriching the pages of this Journal with their learning, thoughts, and aspirations. We earnestly and confidently appeal to such to assist in the good work which it is the object of this Journal to effect. The problem of Education in India is a most difficult one to solve. We believe the salvation of the country to depend in great measure on its proper solution. It will be the easier and the sooner solved when those who are best qualified come forward and assist in the spirit of faith, love, and charity.

In future a few pages of this Journal will be devoted to matters of special interest to students. Advice and suggestions will be offered to students reading for various examinations; and the serious difficulties which attend the conscientious student in his reading will be dealt with by competent persons.

THE EDITOR.

P.S.—The Editor most gratefully acknowledges the hearty response which has come from many quarters in answer to the above appeal. If this is but a foretaste of the support on which he may rely in the future, the success of the Journal as a high-class periodical is already guaranteed.

All books, manuscripts, and literary communications should, in future, be forwarded to the Editor, Mr. Thomas Denham, The Teachers' College, Saidapet; or to Royapettah High Road, Madras.

TEACHING UNIVERSITIES. 186

In years gone by it would have been superfluous to have qualified the term 'University' by such an adjective as 'teaching.' Unfortunately, now-a-days, there are Universities and Universities, and such a qualification as we have indicated is necessary to distinguish one class from another. Broadly speaking, there are three types of Universities at the present day. There are those, such as Oxford and Cambridge, in which the collegiate system and the University are co-existent, and, to a certain extent, interdependent. There are those, again, of which the German Universities may be taken as the type, where the Collegiate system is unknown, and where the idea of a University as a Teaching and Examining body predominate. Lastly, there are those, such as our Indian Universities, and such as the London University has been up to the present moment, which are purely administrative bodies, and whose sole function is to formulate and apply certain tests of knowledge before granting degrees. As regards the latter, an increasing body of opinion pronounces it to be the least satisfactory of all the existing types. In India there is a growing conviction, especially among those who know from experience the difference between an Examining and a Teaching University, that our Indian Universities, as at present constituted, are unsatisfactory institutions, and are the least adapted to satisfy the peculiar wants of the native community. London has just come to the same conclusion as regards its own University, and the Privy Council has now authorised the formation of Teaching University for London to be entitled the Albert University House. From Cape Town, too, comes the news that the building of a Teaching University is contemplated there. If London, the metropolis of the world, the treasure house of all that is best in science, in art, and in literature, has felt its want of a Teaching University, how much more must the Presidential towns of India feel the necessity of following the good example of the mother-city! As they modelled their Universities by the Charter of the London University, so let them hasten to remodel what London, with far less cause, has seen fit to amend.

We ourselves do not hesitate to affirm that the ideal University is one which combines the Collegiate and the University system. But an Oxford University cannot be called into existence at will.

Such an institution is the outcome of centuries of organic growth and is inseparably bound up with all that is noblest and best in the history of the country. The air of Oxford is permeated with the associations of the past. Every College has its saint, its scholar, and its warrior. To live within its walls constitutes an education in itself, to lose which is to lose the best which Oxford can offer. No, alas! India cannot have its Oxford or its Cambridge, with all their refining influences; but it can have, at least, what is next best—Teaching Universities. A University, so-called, which does not teach is a standing libel on the word; for the essence of a University is that it should teach—that students gathered from all quarters should sit as disciples at the feet of those who can speak with authority on what they teach, and who by reason of the fire of their genius can light up an unquenchable desire for knowledge in the breasts of their hearers. The world-wide fame of the Universities of mediæval Oxford and Paris was based solely on the personal element as represented by the teachers. To hear the learned Italian Vacarius discourse on Law, Roger Bacon on Physics, flocked thousands of disciples to Oxford from the four corners of Europe. To listen to Abelard's golden-tongued discourses on Philosophy at Paris, perils by land and by water were undergone by devotees who differed from one another in all that constitutes race, language and manners; but who were one by virtue of their enthusiastic allegiance to their common lord and teacher. But with the diffusion of knowledge through books came a change in the mediæval idea of a University. It was no longer necessary to travel half the length of Europe to acquire knowledge. Books took the place of lecturers, and they have come to be recognised as the chief medium of communicating knowledge, so that some even affirm that the voice of the teacher need no longer be heard. But nothing can compensate for the loss of the living, quickening voice of the *bona fide* teacher. Be the style of the writer never so taking, be his knowledge never so deep, be his enthusiasm never so great, these qualities when expressed through the inarticulate signs of a book, can never compare with the glistening eye, the enthusiastic action, the living voice of the teacher. Character makes the man; and in the formation of the student's character we know no such potent factor as the moral influence which the true teacher unconsciously and directly brings to bear on his pupil. What ineffaceable impressions have been made on

those who have come in contact for the first time, in their undergraduate days, with those whose names were household words, whose works and fame were co-extensive with the civilised world! What a privilege to sit at the feet of those who were confessed masters in what they taught! How cold and lifeless did their words appear in print to those who had heard the same words delivered with all the force, the grace, and the charm with which the speaker had originally invested them! Who can estimate the influence on the ardent young of seeing and hearing a Ruskin, a Liddon, a Stubbs, or a Freeman! And then those delightful *tête-a-tête* conversations with the College tutor or lecturer over the may-be crudely-written essay, when the respective characters of tutor and student were abandoned in a talk which seemed carried on for mutual improvement! How one was encouraged to speak out one's most inward thoughts, unconscious the while of insidiously drinking deep from the fountain of knowledge, or of accumulating for future assimilation the choicest expressions of the choicest thoughts. Then the delightful ramble, in his company, through sunny meadows resplendent with the gladdening flowers of spring; the free and open talk on all subjects; the invitation to breakfast or to dinner! Does the reader ask "What has all this to do with Teaching Universities"? We answer "Everything"! Is it not something to be able to associate one's mentor with some one or other of those social amenities which make this life a little paradise?

It is not alone in the superiority of oral instruction that a Teaching University is so desirable an institution. The successful communication of knowledge is something; but the formation of character is something more. The associations which linger round the buildings of a venerable Teaching University, chasten the intellectual pride of the student, stimulate him to renewed efforts, fill him with reverence and love for those memorials which tell of all that is best in a nation's past. The quickening influence of his teachers induces him to go straight to the spring of knowledge; a habit of persevering industry is acquired; a logical and common-sense view of things in general is taken. To such a man it matters little to what extent he has accumulated knowledge, or the exact estimate of his knowledge which the examiner's test shall give. He has imbibed a taste for knowledge which will last through life, and has acquired habits and manners

which will fit him for the successful performance of life's duties. But a Teaching University has more to offer than this. One mixes, to one's advantage, with young men of a corresponding age from all quarters of the country. In the eager student, whose set of rooms, perhaps, adjoins your own, and with whom you try your strength in intellectual feats, there may be an embryo statesman, a churchman, or a lawyer whose name may one day be famous, when you yourself are doing good, but quiet and unobtrusive work in the world. There are literary and debating societies where the young scholar or the budding orator first feels his feet. There are athletic societies, which possibly may, now-a-days, carry their enthusiasm for athletics to an exaggerated extent but which, nevertheless, offer a very necessary opportunity of adding a sound body to a sound mind. There are Libraries, too, containing within their mellowed walls the choicest gems of literature, and which offer every available opportunity for the student to hold direct communion with the sages of the past. Some affirm that the Collegiate system is an anachronism and is maintained at a cost wholly inadequate with the result. With the relaxation of the rule respecting marriage, the College Fellow and Tutor is a myth, they say, at least as regards the duties which originally formed part of his office. He no longer lives in the College, but keeps house in luxurious style in some suburb, sufficiently removed from the cares and noise of the College. He gives his lecture in a perfunctory business-like-manner and retires to his elysium at the earliest opportunity. If this is true of some, it certainly is not true of all. We admit the necessity for reform, but would deplore any such reform as would sweep the Colleges out of existence, or in any way impair their efficiency as centres of social and intellectual life. The German undergraduate with his free and easy style of living, may sneer as he pleases at the discipline to which English Collegiate students are subjected, but which, however, is more apparent than real. For our part, we know no other machinery for turning out so good an article as the man who has profited to the fullest extent by a residence at Oxford or Cambridge. This opinion is evidently shared by the Delegates of the Oxford University Extension Scheme; for annually they make arrangements for locating in Oxford a large number of Extension Students from all parts of England, during a few weeks of the

Summer Vacation. Not only do the Delegates believe in the efficacy of peripatetic University teaching, but they think the silent influences of Oxford itself should also play their part as a potent teaching factor.

If we cannot have an Oxford or a Cambridge in India, we can have something which is as good or better than the Teaching Universities of Germany and Europe generally. We do not wish to say one word in disparagement of the good work done in our affiliated Colleges. But no one will venture to assert that these Colleges, with their isolated position, their different boards of management, their school-like teaching and discipline, can compare for efficiency with a Teaching University located in one place, and offering all the advantages which the older English Universities offer, save those of the Collegiate System. What we can have is a congeries of buildings, consisting of a Senate House, Examination Schools, Lecture Hall, Class Rooms, Common Rooms, a Library, a Museum, and other offices—buildings round which one day shall hover associations embodying traditions of good deeds and of great men. We can have a body of professors and lecturers, whose names shall be a guarantee of their ability to teach and inspire. We can have a body of students who shall reside in licensed houses in the University town, who shall attend the University lectures and classes, who shall have ample opportunity for coming into direct contact with the professors, and who shall be subjected to a disciplinary code of laws best adapted for their intellectual and moral welfare. We appreciate the difficulty of establishing an effectual supervision over the conduct and morals of the students in non-official hours. But the danger of bringing together a large number of native students for a term of residence is really infinitesimal, as compared with the dangers which would accompany such a proceeding in England. In Germany, where the students live how and where they like, no great responsibility is incurred by the University authorities; for the conduct of the students gives no cause for anxiety. So long as the students are fairly diligent, and attend the lectures fairly regularly, they are free to come and go as they please. They have their College corps, their drinking bouts, and their duels. Every second student one meets in a University town has his face scarred and disfigured by this latter practice. One would have fancied that this barbarous and bloody practice,

accompanied as it often is by hard drinking, would have necessitated the interference of the University authorities. But no! The students settle their quarrels among themselves; and the Imperial sanction lately given to the practice will serve to invest it with an authority which no power, henceforth, will care to challenge.

Indian students are, as a rule, so anxious to acquire knowledge, and to pass their allotted examinations, that we conceive but little difficulty will be experienced on the score of discipline in the event of Teaching Universities being established. The insidious evil of immorality, which is a real danger, might be minimised by a system of licensed lodgings, placed under the strictest supervision. The successful working of the Students' Homes in connection with Dr. Miller's and the Teachers' Colleges, shows how difficulties of discipline and caste can, in great measure, be overcome. Difficulties there will be in whatever scheme of Teaching Universities is adopted. But at any cost some such scheme should be adopted. And when such a scheme is adopted, a body of men must be got together as professors and lecturers who shall be capable of inspiring their disciples with something of their own love for their respective studies—men who shall endeavour to identify themselves with their pupils' interests, hopes, and aspirations. Unfortunately, the intimate relationship which often exists in England between the teacher and the taught, is impossible in a country where racial, social, and religious differences abound. But the gulf may be lessened to some extent, if only a real desire for an approachment existed.

The immediate consequence of the establishment of such a Teaching University as we have indicated, will be a diminution in the number of undergraduates. Want of means will be a real obstacle to some; but Scholarships, awarded after open and competitive examinations, would meet the best deserving cases. Poverty, unaccompanied by ability, has no real claim to a costly yet eleemosynary education. The flood of men who matriculate would be checked, and the quality of both the examinations and the candidates would be improved. Teaching Universities we must have at any cost. Calcutta and Bombay are both exercising themselves on the question. We live in hopes of seeing the Presidency of Madras even yet take the lead in the matter, and give the lie once more to the assertion that she is the 'benighted' Presidency. The

extraordinary success of two alumni of Madras University this year at Cambridge, which we record in another column, is an argument in favour of what we have urged, and shows what our students are capable of doing when competing with Englishmen on equal terms.

A HIGH SCHOOL FOR EUROPEAN BOYS IN THE NILGIRIS.

An article, couched in able terms, lately appeared in the *Madras Times* on the respective merits of the three Nilgiri Stations of Ootacamund, Coonoor and Kotagiri. We endorse everything which was said in favour of the charming Hill Station of Kotagiri. The thanks of the residents are due to the Editor of the *Madras Times* for having brought the advantages of their station to the public notice in such feeling terms. Kotagiri only wants to be known to be thoroughly appreciated. The immediate neighbourhood reminds one of the sweet loveliness of North Devon, while the open hilly country around is a good substitute for the far-stretching breezy moors of Scotland. The climate, too, has its advantages over that either of Coonoor or Ootacamund. In fact all nature seems to combine to adapt this station to the wants of the European.

It struck us as being just the place to establish a High School for European boys. Of the necessity for such a school there cannot be a doubt. The existing European institutions on the Nilgiris are three in number, none of which are intended for the class of boys to which we refer. The Lawrence Asylum chiefly supplies the wants of European soldiers' children. A small Catholic institution at Wellington caters for European and Eurasian middle class boys; while at the Breeke's Memorial School at Ootacamund, Native, Eurasian and the poorer class of European boys are provided for. As regards this latter institution, we believe there was no intention originally of admitting native boys to its privileges; and to remedy the present unsatisfactory state of things, we see no alternative but to put the institution under the direct control of Government. Much is done by the Government of India for the education of the natives, and rightly too. But we are of opinion that its responsibility does not rest there. Something definite should be done on behalf of its European servants, and it should lend the sanction of its name to some

institution specially set apart for the benefit of European children. The moral and active support of the Government is necessary for the success of any such an undertaking. High class Private Schools for Europeans have been started, at one time or other, on the Nilgiris by private gentlemen. Their success at first seems to have been unbounded. Men, like Dr. Pope and Mr. Metcalfe, gained an Indian reputation as successful schoolmasters; but this only intensifies the regret that their undertakings ultimately came to nought. Whatever reasons may be alleged for their failure—and the reasons alleged seem to us both contradictory and insufficient—we are convinced that the success of a High School for European boys would be guaranteed, if the Government undertook its direction, at least for a time. The social exclusiveness of Anglo-Indians which is alleged as a chief cause in the failure of private high schools, could be successfully defied and finally overcome if the Government started and supported a thoroughly good Public School in one of the Hill Stations. The same prejudice against social admixture does not exist in England, where the Public Schools are largely recruited from all classes. Only one entrance qualification exists—the necessary one of being able to pay for the luxury of a Public School Education. The disciplinary education which this admixture involves, constitutes, in the eyes of many, one of the chief advantages which the English Public School offers.

The advantages to be derived from the successful establishment of such a school as we have indicated are so overwhelmingly great that no effort should be spared to bring about so desirable an end. The greatest drawback to English parents living for any length of time in India is the sore parting with their children at an age when they would wish to retain them most. To give their boys what India does not supply at present, *viz.*, a Public School Education, expensive journeys to and from England are continually undertaken; and unless there are reliable friends in England who will charge themselves with looking after the welfare of the children, there remains the harassing thought that the latter are not as happy, or as well cared for, as they might be. We admit the advantages of an education gained in England; but it is not every Anglo-Indian parent who can well afford the expense of sending all his sons to England. In any case the departure of the boy might well be delayed for a few years if a properly managed English

High School was established by Government on some Indian Hill Station. It is not uncommon for Anglo-Indian children to forget even the appearance of their parents during the impressionable years they spend in England. True filial love and reverence, the influence of home-life, the parents' joy in the presence of their offspring, are all sacrificed on the altar of an English education acquired in England. An establishment, such as we have recommended, would enable Anglo-Indian parents at the moderate charge of between forty and fifty rupees a month to reap the advantages of an English education for their children amidst glorious and healthy surroundings, and would give them the privilege of seeing their children during the two or three vacations in the year.

At Kotagiri we know an available property which would readily adapt itself to the requirements of such a school. It is charmingly situated in over a hundred acres of its own, where nature would afford every opportunity for the boys to exercise their British pluck—a charming spot which the Marquess of Dalhousie much appreciated, and which was lately visited by his daughter, Lady Connemara, with the object of awakening pleasanter reminiscences than her later and wedded life afforded. We sincerely trust that this question of a High School for English boys will not be allowed to drop. We are convinced that the attention of the Government has only to be drawn to the great necessity for such an institution to ensure the need being supplied.

THE MAGIC LANTERN AS AN EDUCATOR.

The merits of the Magic Lantern as an Educator are being increasingly recognised in England. For political, social, religious, and educational purposes the lantern is now largely used. On the score of novelty, charm, and interest nothing can approach it. Years ago it was mainly used in England by Missionary Societies to awaken and retain the interest of their juvenile supporters. The most vivid and pleasant recollections of our own childhood are associated with the Magic Lantern. How eagerly we looked towards the end of such exhibitions, when we were to be indulged with a few comic slides as a reward for our previous timorous attention to the usual stereotyped tales of heathen barbarity and cruelty! But times have changed, and the Lantern now holds a prominent

place in every Mission which seeks to humanise, to indoctrinate, and to elevate the masses. The stump orator, holding forth, for instance, on the wrongs of Ireland, knows how to 'fetch' his audience by dilating on the gruesome details of the picture of some evicted family as depicted on the lantern sheet. The would-be-social reformer knows that the best way to inculcate moral truths is to allow the lantern slides depicting Hogarth's 'Idle Apprentice' or 'the Rake's Progress' to speak for themselves to an open-mouthed and interested audience. The hard-working conscientious parson, despairing of awakening religious interest among his parishioners, at last takes a lesson from the medieval Miracle Plays, screens off the choir by a large sheet, on which bright pictures illustrative of Biblical history are exhibited and explained to a reverent, rapt, and crowded audience. Lastly, the scientist, practical and enthusiastic, reveals the wonders of nature to crowds of the sons of toil; who, with the traces of their labour still disfiguring their persons, sit and listen, regardless of time and fatigue. Even so highly a respectable and academic body as the Delegacy of the University Extension Movement does not disdain to avail itself of the many advantages which the lantern affords as a help in nationalising University privileges. The dullest lecturer of the driest subject will obtain a respectful hearing if only the oracular utterances are few, and the illustrations many. In such cases the lantern is in reality a *magic lantern*.

Yet strange to say in the one country where its presence is most needed, the lantern is least appreciated as a potent educational factor. No one with the slightest pretension to educational experience in India will deny that the faculty of imagination among students is most conspicuous by its absence. A rigid caste system, a conservative religion, a stay-at-home people, and faulty methods of teaching are chiefly responsible for its continuous suppression. The lamentable result is that words represent so many letters and not ideas to the youthful mind; that examinations are the be all and the end all of education; and that the average native is as innocent of original research and thought as a new-born babe. The faculty of illustrating what is taught and of stimulating the imagination of the pupils, is one which needs developing *ab initio*. We have known teachers to whom it was necessary to explain that a map should be an inseparable

adjunct to every lesson in geography or history—that every lesson should be well illustrated by means of the black-board. To our mind every reading, history, and geography book should be well illustrated with maps, plans, and well-executed pictures. And here it is that the Magic Lantern as an Educator would prove invaluable. To many boys the word 'London,' for instance, is nothing more than a word with six letters to be remembered in conjunction with other words, the whole having no intelligible meaning. The phrase 'London on the Thames' does not awaken their interest in the least. 'London' is not for them the pulse of the world, throbbing with life and teeming with past associations. The 'Thames' is not for them a river crowded with shipping from all parts of the world, spanned by bridges without number, and overshadowed, as at Eton, Oxford, Westminster and Greenwich, by the proud memorials of the nation's past and present history. Yet in a way, and to a certain extent, these things can be brought home to children by the skilful teacher who takes every opportunity to illustrate the lesson by graphic description, and an apt use of pictures, maps, and the black-board. But how invaluable would the lantern occasionally prove in assisting the youthful mind to realise what the names of places really imply. So convinced were we of the utility of the lantern in this respect, that we determined to give a treat to the pupils of a certain institution in the form of a Magic Lantern lecture on London and the chief capitals of Europe. Imagine our surprise when we discovered on enquiry that such an out-of-the-way sort of thing as a Magic Lantern was not to be procured at any of the firms in Madras; and that the lantern and the slides for our purpose would have to be brought out from England. By writing directly to England we found that a good lantern with various series of slides illustrative of London, Westminster Abbey, The Tower of London, Oxford, Cambridge, &c., could be procured at a moderate cost. Emboldened by this news we have approached the Director of Public Instruction on the subject, with a view to persuading him as to the advisability of having a good Magic Lantern or Lanterns belonging to the Department, to be placed at the disposal of one or other recognised Educational Institutions. Meanwhile, here is a golden opportunity for those who have a few superfluous rupees, and who are anxious to give innocent amusement and instruction to those who have but few amusements in their young lives, and who would

take the keenest pleasure in the intellectual feast provided for them. Why not start a lantern in connection with the present Journal, and in lieu of a better name call it the 'Journal of Education Lantern?' We would undertake to supply a lecturer at the first start-off, who would describe the various scenes shown on the sheet. We believe incalculable good might be done in this direction. We throw out the suggestion with the hope that our benevolent friends will think it worth considering.

OUR TEACHERS.

Perhaps in no country in the world has more attention been given to the training of teachers in recent years as in the Madras Presidency. Not only has a first grade college been established for the training of secondary teachers and affiliated to the university, but in all the chief towns of the various districts of the Presidency, training schools have been established, so that in the opinion of the Director of Public Instruction, the supply of trained teachers is at present almost equal to the demand. Acting on this opinion, and influenced probably by the success which has attended the training of teachers in this and other countries, the powerful committee appointed by Government, consisting of the leading educationists of Southern India, have resolved that before a school shall be considered eligible for a Government grant, the headmaster must hold a normal certificate or have had several years' experience, and also that at least half of the staff of the school shall be trained or have had at least five years' experience. The Senate of the University have also adopted these resolutions, and before a school can send up pupils for any of the University examinations the above conditions must be fulfilled. Undoubtedly the effect of these resolutions will ensure better teaching in our schools, and the want of discipline and want of good manners, very noticeable and prevalent in the rising generation, will in time disappear. If the men who offer themselves as candidates for the teacher's profession, and who mean to devote their lives to education, are well educated and enthusiastic, there is no reason why the improvement earnestly hoped for should not quickly be made evident. Unfortunately since the Government schools have been handed over to local bodies and native management, the position

of the schoolmaster has greatly deteriorated. Not only does he not get the salary and pension he used to get, not only is he uncertain as to whether his employment is permanent or not, but he is also made conscious that the change of masters has caused him to lose social prestige. He is not a Government servant, his opportunities for advancement are small, and he is treated with less consideration by his friends and associates. The result is that very few men of good ability enter the profession. As a rule those who enter are men of small attainments driven into the profession because they have failed to obtain Government employment; or because their means do not allow them to become vakils or attorneys. It is almost impossible to suggest a remedy. The mischief has been done and its effects will remain for years. The teachers of this country will be men earnest and enthusiastic let us hope, but possessing very few of the qualities necessary to form good teachers. To train men of this class for the work of a schoolmaster involves great difficulty. To a man who possesses naturally the aptitude for teaching, the lectures on method, and the model and criticism lessons he attends give him sufficient notion as to what is good teaching and what is bad, so that he readily imitates the former and avoids the latter. But to a man who has no innate ideas of good teaching, not only has he to be lectured to, and not only has he to attend model and criticism lessons, but when he comes to practise in the practising school, it will be seen that all that is bad in a teacher is exemplified in his teaching, and that one correction is not sufficient, while months of teaching under strict supervision make little difference to his manner or method. The majority of men who offer themselves for training are of the latter class. The same faults are reiterated, the same mannerisms indulged in, the same stupid kind of question is repeatedly put, the same lax manner is always evident, until it seems impossible that the man will ever become a good teacher. By constant watchfulness and care on the part of the supervisor, and by dint of perseverance on the part of the student, a certain amount of improvement results, so that at the end of his training, although he is certainly better than he was at the beginning, a great deal has still to be done while he is at work in his school to ensure success. Experience may produce perfection, and in the case of a man who is earnest and tries his best, generally he becomes far

more successful than as it was at one time thought he possibly could be. A typical instance came under our notice quite recently. A man of fifteen years' experience, the head master of a normal school in the mofussil, was sent by his Inspector for training. He was diligent and earnest, and a great many of his mannerisms which had become habits with him, as a result of fifteen years' constant practice were, in some measure, eradicated. On his return the Inspector reported that although he had improved, he was far from being a good teacher. Exactly. Nothing short of a miracle could have made perfect such a man in twelve months: although he had been shewn and knew what was right, his mannerisms and bad methods had become an essential part of his teaching, and it would take years of diligence and care before he could completely cast off the old and put on the new. It was a great thing in the case of such a man that he should know what was right; then as we have before said, perseverance would in the course of time produce a marked change for the better. Many students pass creditably the various examinations connected with School-Management, History of Education and Psychology, who fail completely when placed in front of a class. It seems to be the characteristic of Indian students to learn the theory without much difficulty, but to fail in the practice. And this is not only noticeable in the case of school work, but in all special and technical subjects where the theory learnt from books or lectures has to be put into practice in the laboratory, workshop, or field, the practical side of the subject is that which causes the teacher most anxiety, and which generally produces failure. In England the exact opposite obtains. The Inspectors complain that the paper work is rarely done well, but that the practical work is as a rule creditable. Hence the difference in the method of training students in the two countries. In England the students spend very little time in the practising school, in India most of the time is spent in teaching under supervision. Whether a student will ever develop into a good teacher after he leaves the training college, depends on the supervision he receives while working in his school, and on the energy he himself bestows in carrying into practice that which he knows in theory. In a future number we may indicate the help that should be given to a young teacher after he has left the training college.

MADRAS GOVERNMENT OF INDIA SCHOLARS IN ENGLAND.

The Government of India Scholarships of the value of £200 per annum placed biennially at the disposal of the Madras University are now held by Mr. C. Krishnan at Christ's College, Cambridge, and by Mr. F. X. D'Souza at St. John's College, Cambridge. When these young men left Madras to compete with Englishmen on an equal footing at one of the greatest English Universities we expressed it as our opinion that they would distinguish themselves and bring credit to their *alma mater*. We are glad to observe that our expectations have been fully realized. We have from time to time recorded in these columns the successes of Mr. C. Krishnan. He took up Natural Science as his special subject, and won a very high foundation Scholarship at Christ's College at the end of the first year. He soon became recognized at Cambridge as one of the most brilliant science students of the University. A few months back he appeared for the first part of the Natural Sciences Tripos and succeeded in taking a first class which is itself a very enviable distinction. Mr. Krishnan's successes at Cambridge attracted the notice of the Secretary of State, and as a special concession his Scholarship was continued for another year in order to allow him an opportunity to compete for Part II of the Natural Science Tripos. The results of this examination are just out, and we are rejoiced to find that Mr. Krishnan has secured a first-class even at this examination, his special subjects being Botany and Chemistry. This is a unique distinction which very few English science graduates can boast of. Our readers will perhaps understand better the exact value of this distinction when we say that the position secured by Mr. Krishnan in the Science list is equivalent to a place among the first ten wranglers in the Mathematical list. The high position secured by Mr. Krishnan should entitle him to a Fellowship at Christ's College, and we believe there is nothing to prevent a non-Christian holding a Fellowship. It would indeed be a triumph to the Madras University if one of its graduates is elected a Fellow of one of the Cambridge Colleges. Mr. Krishnan is a graduate of the Presidency College, and received his science instruction under Dr. Wilson. Our Presidency might well be proud of so distinguished an *alumnus*.

Mr. F. A. D'Souza is also doing remarkably well at Cambridge. He is a scholar of his college and has just secured a first-class in Part I. of the Law Tripos. Mr. D'Souza is a good all-round man. He distinguished himself in English Classics and Science at the Madras University. We are also pleased to note that at the late General examination of Students of the Inns of Court, the Council of Legal Education awarded to Mr. D'Souza a studentship in Jurisprudence and Roman Law of 100 guineas to continue for two years. He is now preparing for the Indian Civil Service competition, and we have every reason to think that he will pass—and pass very well too. Mr. D'Souza is a Native Christian and was formerly a student of St. Joseph's College. It speaks well for the training which students receive at the "benighted" Presidency that the first two scholars whom the Madras University has sent to England should have achieved such remarkable success.

The opportunity which the Government scholarships afford to some of the distinguished graduates of the local University to undergo a training in the two greatest seats of learning in England and to share in their unique social advantages cannot but prove of very great advantage to the country; but with Mr. Grigg we regret the absence of any provision for the employment of such students on their return to India in callings suited to their training. Mr. Grigg says:—"A better system would be to grant scholarships for special study in Europe for young men selected for posts requiring such special knowledge. The country will then probably receive a definite return for its outlay; now it may receive none at all, or worse than that a young man discontented with everything and everybody except himself." In these two cases, however, there seems to be no difficulty. Mr. D'Souza is sure to get into the Indian Civil Service. As for Mr. Krishnan if a College Fellowship does not tempt him to remain in England, the Government cannot do better than secure his services for the Educational Department.

UPPER SECONDARY CLASSES.

The improved Matriculation curriculum differs so little from the compulsory portion of the Upper Secondary examination that it will be possible for University High Schools to prepare candidates not only for the Matriculation, but also for the Upper Secondary

examination without opening separate classes for the latter. Schools preparing candidates for the Upper Secondary examination may easily prepare them for the Matriculation also.

In English, both classes of candidates have to answer a paper on Grammar and Language and a paper on Paraphrase and Composition. Matriculation candidates are not examined in Handwriting or Spelling; but it is presumed that neither of these will be neglected in University High Schools. Both are examined in Translation; but since the Upper Secondary candidates have to secure 50 per cent. in Translation, they will have to be taught Translation two more hours a week than the Matriculation candidates.

In the Second Language, both have to study the same text-book and the same grammar; both are examined in Translation and Composition, except that in the Upper Secondary examination more marks are assigned to Composition. Matriculation candidates are expected to attend to their handwriting and spelling at school, though they are examined in neither.

The two classes of candidates may be taught Arithmetic, Algebra and Euclid together in the Fourth and Fifth forms. In the Sixth form, Matriculation candidates may be given an hour extra for learning Quadratic Equations, in which hour the Upper Secondary candidates may be taught the IVth Book of Euclid, which is not prescribed for the Matriculation.

Both may be taught Geography and Map-drawing together; both are examined in Map-drawing; only, Matriculation candidates are not given a separate paper on that subject. In the Histories of England and India, Upper Secondary candidates have to study only the later portions, which may be taught simultaneously to both classes of candidates. When Matriculation candidates are taught the earlier portions of the two Histories Upper Secondary candidates may do the extra Translation recommended for them in the second para.

In University High Schools, therefore, such pupils as are desirous of appearing for the Upper Secondary examination may be prepared in their four compulsory subjects along with the Matriculation candidates during the time devoted by the latter to English, Mathematics, Vernacular, History and Geography.

Upper Secondary candidates have also to pass in three optional technical subjects. When Matriculation candidates learn Physics and Chemistry, Upper Secondary candidates may be taught one of their technical subjects, in which they may pass at the end of 15 or 18 months. When they have passed in one technical subject, they may begin their second optional subject. By the time they appear for the compulsory subjects, they will have passed in two optional subjects, and will have done a portion of their third optional subject, in which they may appear a few months after their examination in the compulsory subjects is over.

The students of University High Schools are promoted to the Fourth form in January, remain in the High School department for three years and appear for the Matriculation in December. But such of them as are prepared for the Upper Secondary examination will remain three years and a half in the High School department, since their examination is in May; during this extra session, special attention may be devoted to Translation, Handwriting, Spelling and Composition.

Business High Schools, whose primary object is to prepare candidates for the Upper Secondary examination, may easily send up pupils of the Sixth form for the Matriculation six months before they appear for the Upper Secondary examination. For this purpose they will have to be taught in addition Quadratic Equations, the earlier portions of the Histories of England and India, and Physics. The first three sessions in the High School department, all the pupils may be prepared for the Higher examination in Inorganic Chemistry, which is one of the optional subjects for the Upper Secondary examination. During the next three sessions such as want to appear for the Matriculation may be taught Quadratic Equations, Physics and the earlier portions of the two Histories in the hours till then devoted to Inorganic Chemistry; and such as do not mean to appear for the Matriculation may in those hours be taught their second technical subject.

Suggestions will be offered in the next issue as to the selection of three optional subjects for the Upper Secondary examination from the student's point of view, as well as from the School-Manager's point of view; also as to the time that will have to be set apart for teaching them.

195

THE STUDENT'S COLUMN.

Conformably to the editorial announcement that a column would, in future, be devoted to matters of special interest to the student, we are glad to be able to insert as a first instalment the following original mathematical problems for solution. In our next issue we shall insert what we consider the best answers from among the many which we hope to receive. At no distant date, too, we shall give, month by month, a summary of the development of the Educational system of India from 1854 to 1885, being the subject of examination for the L. T. Degree in 1893. This sketch will, in the main, be based on the voluminous report of the Indian Education Commission of 1883, and the Review of Education in India in 1886 by Sir Alfred Croft, K.C.I.E., M.A., Director of Public Instruction, Bengal. We trust this sketch will be as interesting to our general readers, as it must be valuable to intending candidates for the L. T. Degree.

To the Editor, "Madras Journal of Education."

SIR,—I request you will be good enough to insert the following questions in the mathematical section of your Journal and get me solutions for the same.

MATHEMATICS.

1. (i) If a number contains p digits, how many digits does its p th power contain?
- (ii) Two numbers contain m and n digits respectively; how many digits does their product contain? how many does their quotient contain?
2. (i) If $ax^3 + bx^2 + cx + d$ be divisible by $(x-p)^2$, then $3ax^2 + 2bx + c$ is divisible by $x-p$.
- (ii) If $ax^4 + bx^3 + cx^2 + dx + e$ be divisible by $(x-p)^3$, then $4ax^3 + 3bx^2 + 2cx + d$ is divisible by $(x-p)^2$; and $6ax^2 + 3bx + c$ by $(x-p)$.
- (iii) Shew that $10(b-a)^3(b^2-a^2) - 15(b-a)(b^4+a^4) + 6(b^5-a^5)$ is divisible by $(b-a)^3$.
3. Prove the following identities:—
(i) $\Sigma(b-c)^3(b+c-2a) = \Sigma(b-c)(b+c-2a)^3$.
(ii) $\Sigma(x^2-yz)^3 - \Sigma(x^2+2yz)^3 = 3\pi(x^2-yz) - 3\pi(x^2+2yz)$.
4. Shew that (i) $(4a^2+4ab-b^2)^2 + (2b^2+4ab-2a^2)^2 + (4a^2-2ab+2b^2)^2$ is an exact square.
(ii) $(2a+3b+4c)(4a+5b+3c)(3a+4b+5c) + (a+b+c)^2(a+2b+3c) + 2(a+b+c)^3$ is a perfect cube.
(iii) If $a^2+b^2=c^2$, shew that abc is divisible by 5.

5. (i) If $b = \frac{2ac}{a+c}$, then $2 > \left(\frac{a}{b}\right) + \left(\frac{c}{b}\right)$.
- (ii) If $x < 1$, then $\frac{1}{1+x} + \frac{2x}{1+x^2} + \frac{4x^3}{1+x^4} + \frac{8x^7}{1+x^8} + ad inf. = 0$.
- (iii) If a, b, c, d be real quantities, and $1+ab+cd = \sqrt{(1+a^2+c^2)}\sqrt{(1+b^2+d^2)}$, shew that $a=b$, and $c=d$.
6. (i) Solve $x^2+2yz=a; y^2+2xz=b; z^2+2xy=c$.
- (ii) If the equation $\frac{\sqrt{a}}{2\sqrt{a}+\sqrt{bc}} + \frac{\sqrt{b}}{2\sqrt{b}+\sqrt{ac}} + \frac{\sqrt{c}}{2\sqrt{c}+\sqrt{ab}} = 1$ be rationalised, the result is $abc = (a+b+c-4)^2$.
- (iii) If $a+b+c = a+\beta+\gamma$ and $abc = a\beta\gamma$, then each member of $\frac{1}{x+a} + \frac{1}{x+b} + \frac{1}{x+c} = \frac{1}{x+a} + \frac{1}{x+\beta} + \frac{1}{x+\gamma}$ is equal to $\frac{1}{x}$.
7. If $l=x+y, a=x+\frac{yz}{y+z}, b=y+\frac{xz}{x+z}$;
 then $x = \frac{a(l-b)}{a-b} \left\{ 1 - \sqrt{\frac{b(l-a)}{a(l-b)}} \right\}$
 and $y = \frac{b(l-a)}{b-a} \left\{ 1 - \sqrt{\frac{a(l-b)}{b(l-a)}} \right\}$

DIRECTIONS FOR TEACHING A NEW RULE IN ARITHMETIC.

1. Select a judicious example of the Rule to be taught and write it on the black-board.
2. By means of suitable questions, get the class to tell you how to work it, and direct their attention to the principle involved in the Rule. Treat two or three other examples in the same way, afterwards elicit from the class the Rule required. If the boys are not able to express it in a suitable form, assist them to the extent necessary and then direct them to enter it in their note-books, to be afterwards thoroughly acquired.
3. Work one or two examples on the board with the aid of the class, directing attention to the *mode of working* and to any peculiarities that may belong to the particular Rule.
4. Work another example on the board with the utmost care and let the class copy it in their note-books as a model to work by.
5. Get the boys themselves to work one or two examples on the board, to give them confidence in the application of the Rule.

6. Give a sufficient number of examples bearing on the Rule to be worked in the class or at home, to enable the boys to use the Rule readily, accurately and rapidly.

7. Insist on every boy working the examples in the same way as the model he has copied.

8. While the boys are working the sums, do not stand idle, but go round the class from boy to boy, to ascertain whether the mode of working is right, whether the arrangement is neat, whether the figures are properly formed, whether simple operations are performed mentally.

9. Bring any general fault prominently to the notice of the whole class and see that it is not repeated.

TRAINING.

CORRESPONDENCE.

To the Editor of the "Madras Journal of Education."

SIR,—My hearty thanks to all those gentlemen who were instrumental in bringing about the removal of Hanumantha Rao's "First Lessons in Geometry" from the Upper Secondary curriculum. Your review of the book in its third edition (*vide* Feb. number of 1890) did not state all its faults and defects. It is only when one begins to study the book carefully in the class for an examination that the want of system and accuracy that pervades the whole book becomes very prominent. I had to forget the rigorous proofs of many many propositions, to remember 'the foldings and cuttings' of paper and what are offered as proofs by the author. But I had the advantage of becoming acquainted with 'Cross Staff,' 'Theodolite,' 'Eleograph,' 'Draughtsman's triangle,' 'Pythagorean Numbers,' 'Symmetrical Kites,' 'Rectangular Protractor,' &c., &c., which even a Master of Arts of the Madras University has little or no opportunity to come across.

After having studied the book for two years with plenty of paper with a knife and a pair of scissors and with a Colonial's treasure, we are peremptorily ordered to lay all that aside and to read the first four books of Euclid. How is it possible for me to study the propositions of four books in 9 months? True, I learnt the first book of Euclid for the Middle School examination, but had to unlearn the same to understand Hanumantha Rao's book. Therefore, dear sir, I request you to place my case before the proper authorities and have me examined only in the first two books of Euclid in May 1892. For which act of kindness, I shall always be thankful to you.

"A WOULD-BE U. S. CANDIDATE."

REVIEW OF EDUCATIONAL JOURNALS.

The Educational Journals for July, both English and American, are generally lacking in interest—at least in information of special interest—to Indian educationists. We are making arrangements for receiving representative Journals from all quarters of the globe, and shall make it our duty to call from them all that may interest our readers, together with such information which it is important that a country like India, young in its experience of educational systems, should know. It is surprising how little knowledge even the best English educationists possess of the details of educational systems outside their own. Such knowledge is necessary to raise us out of the region of petty details and the monotonous routine in which our work involves us. It will give us cosmopolitan tastes, widen our experience, add a dignity to our calling and a fulness to our teaching, all the more necessary because mental stagnation threatens all but the most enthusiastic and conscientious teachers. We shall, therefore, do our best to lay such information before our readers as is best calculated to counteract the teacher's peculiar dangers and supply him with material to stimulate him in his work, by showing him that he is one of a world-wide body of men engaged in the noblest of all professions.

The *Bombay Educational Record* deplors the death of Rao Saheb Mahipatram Rupram Nilkant, C.I.E., Principal of the Ahmedabad Training College, after a service of 36 years. Mr. Mahipatram visited England and resided for some time in an English Training College. It would seem that the development of primary education in Gujarat is intimately associated with his name. The Governor in Council has placed on record his high sense of the valuable services rendered by the deceased. The same Journal notices an important concession secured from the Government, whereby the time spent by teachers already in the service of the State in a Training College shall count towards a pension. We trust this will induce more teachers than ever to seek admission into the Training Colleges.

The *Madras Christian College Magazine* for July is an exceptionally interesting number. The paper on the *Origin of Greek Tragedy* by Mr. Macmillan. It is specially interesting to Indian students because Mr. Macmillan takes the opportunity to discuss the Origin of the Hindu drama, and comes to the conclusion that the latter was indigenous, and that the parallels drawn between the Greek and Indian drama do not prove that the latter is derived from the former, but only point to similarity in origin, development, and conditions. With such an origin it is

197
to be lamented that the Hindu drama does not play now a greater part in the social and moral development of the people. It should be used on occasions other than those of religious festivals, and if kept within proper bounds might become a mighty engine for the improvement of the masses. The *Recent University Changes* are discussed in detail by Mr. Morren, who comes to the conclusion that, all things considered, the changes are for the good. Space prevents us from discussing the strictures he passes on the kind of man to whom the direction of education should be entrusted. But there is more to be said on behalf of administrative ability as opposed to technical and detailed knowledge as a qualification for such a man than Mr. Morren seems inclined to admit. As an example of what administrative ability without technical training will do, provided there is a good staff of permanent officials at hand, take the present successful Minister of Education in England—Sir W. Hart Dyke, the author of the Free Education Bill. Possibly on another occasion we may draw swords with Mr. Morren and fight out the question thoroughly with him.

Our namesake, the *London Journal of Education*, shows that there is nothing like unanimity of opinion among Teachers as to the desirability of the Teachers' Registration Bills. It is curious that there should exist any difference of opinion as to a measure which will give a very necessary legal status to the profession. But so it is. Even the Association of Head-mistresses, at its annual Conference lately held, passed a resolution by a small majority that the time was not yet ripe for legislation. As is often the case a beneficent measure has to be thrust on unwilling recipients! In our opinion the Registration Bills will give a legal status to Teachers, will improve Teaching and the prospects of Teachers, and will purge the profession of the black sheep. In time the same thing will have to be done in India. The same Journal rejoices that both at Oxford and Cambridge the proposal for establishing a day Training College had been adopted by a large majority. We candidly confess we have our doubts as to the wisdom of locating elementary schoolmasters at the older universities. Time will show! Details of the nature of the new Teaching University for London are not to hand, but judging of the objections and recommendations of certain institutions in regard to the scheme, no scheme can possibly be drawn up which will give profound dissatisfaction to all except those who are directly interested in the establishment of a Teaching University.

The *London Educational Times* has a most valuable paper by Mr. Sharpe, Inspector of Training Colleges, on *Some Uses of Visible Illustrations*. This is a subject which needs to be specially brought home to Indian teachers. For, as the writer says, it is difficult to overrate,

especially with very young scholars, the subsidiary value of diagrams and pictures. The writer shows that even in such subjects as Arithmetic and Grammar, graphic representation might be made available. The *Free Education Bill* is placed under discussion, but no aspect is discussed which we have not already placed before our readers.

The *Boston Journal of Education* (America) contains nothing of note in the last issue to hand. We are glad to note that for the first time in the history of University work, the University of the City of New York has conferred pedagogical degrees. Fourteen graduates have received the degree of Doctor of Pedagogy, and twelve the degree of Master of Pedagogy. We hope to see the time when both the English and Indian Universities will see fit to grant degrees of Bachelor, Master, and Doctor of Pedagogy.

We have not yet received the July number of the *American Educational Review*, but its earlier numbers are before us. From the June issue we extracted Mr. Quick's interesting *Autobiography* which appeared in our last issue. The *Educational Review* is quite a new periodical, but is easily the leading high-class educational periodical published in America. We can strongly recommend it to those Indian Institutions which care to have a record of the best literary efforts of American educationists. Together with the *Boston Journal of Education* it would give all that is necessary to be known of contemporary American education. Other American Journals we have received are the *New York Learner and Teacher*, the *Canada Educational Monthly*, *Common School Education* (Boston), *Education* (Boston) and the *New York Teacher*, all excellent in their way.

NEWS AND NOTES.

LOCAL AND INDIAN.

Mr. C. Michie Smith has been appointed to officiate as Government Astronomer, Madras sub. *pro tem*.

We understand that Mr. H. B. Grigg, C.I.E., will resume his duties as Director of Public Instruction early in November.

Mr. Edwin Winckler, B.A., has resigned the Principalship of the Zamorin's College, Calicut, and has accepted the Principalship of the Hindu College, Tinnevely.

Three of the higher class pupils of the Maharanee's Girls' School, Mysore, having been found qualified to teach, have been appointed teachers on Rs. 75 per mensem.

Seven candidates appeared for the Preliminary Scientific examination, only one passed; four candidates appeared for First M. B. examination, two passed.

Of the two candidates who appeared for the Second M. B. Examination, one has passed, viz., Nanjunda Row, B.A., in the 1st class. This is the first time a candidate has been placed in the 1st class, in Second M. B. and C. M. examination.

Out of the 96 candidates who appeared for the 1st L.M.S. examination, only 17 passed. There must be something radically wrong somewhere. The teaching, or the method of examination, or the students themselves, must be hopelessly bad. Perhaps the Principal of the Medical College can enlighten the public.

The Madras Government has requested the sanction of the Government of India to the disbursement annually of Rs. 700 as honorarium to a Lecturer of Physics, to be nominated each year, for the purpose of delivering a course of forty lectures to the students for the preliminary scientific examination in the Madras Medical College.

Among the few successful candidates at the recent First L.M.S. examination we are glad to notice the names of three lady students, Miss Ida Bowie, Miss Pearson, and Miss Hartnett; Miss Ida Bowie, enjoying the distinction of being first in order of merit among them. When it is considered that out of a total of 96 students who appeared for the examination only 17 were successful, these three young ladies are to be congratulated, and deserve the highest praise for the creditable manner in which they have acquitted themselves.

Mr. S. Saththianadhan, M.A., LL.B., (Cantab) acts for the third time in the Philosophy Chair in the Presidency College, *vice* Dr. Duncan, M.A., D.Sc. We heartily congratulate him.

The Rev. A. W. Atkinson has accepted the appointment of Principalship of the Lawrence Asylum at Lovedale on a salary of Rs. 700 rising by annual increments of Rs. 25 to Rs. 800.

The Higher and Lower examinations in Drawing and allied subjects will be held on the 7th September and the following days. The examinations in Commerce will take place in the last week of October.

As the building for the Madras Hygienic Laboratory is expected to be completed by November next, the Secretary of State has been indentured upon for the necessary apparatus.

The Madras Government has requested the Secretary of State to arrange with the authorities of the University of London for the Matriculation Examination of that University being held at Madras in January 1892.

Out of the eleven candidates sent up by Chengelroy Naicker's Commercial High School, Madras, five candidates have passed the Upper Secondary examination. Some in three and some in two of the compulsory subjects.

The proposal made some time back by the Madras Government for forming certain appointments in the Educational Department into a graded service has been approved of by the Secretary of State with slight modifications.

The old Dramatic Theatre of this well-known Hall at Nungumbaukam is to be converted into a Record Room, at the cost of Rs. 3,200 for the use of the Director of Public Instruction, and the work is to be put into execution at once.

The Commissioner for the Uncovenanted Civil Service Examinations notifies that the next examination in the subjects prescribed for the Special Tests, including the Salt and Abkari Tests, will be held on the 19th and following days of October.

Dr. Wilson leaves India for England this week on 15 months furlough. Dr. Bourne of the Presidency College has been appointed to act as Registrar *sub. pro tem.* till the appointment of a permanent Registrar by the Senate of the University.

Mr. S. H. Reynolds, M.A., of Trinity College, Cambridge, arrived in Madras from London on the 5th ultimo. He is to act as Professor of Biology in the Christian College, in the room of Dr. Henderson, who has proceeded to England on a year's leave.

The Rev. Mr. Davies, the Principal of the Docton College, is to be congratulated on the steady increase of pupils since he took charge of

this Institution. The number has now increased to 160, and it was something like 100 when he took charge.

We understand that Mr. A. E. Duchesne, B.A., Headmaster of the Commercial High School, Madras, has been appointed Chairman of the Lower Secondary Examination Committee for Madras and Chingleput. His work will be heavy, and we believe a Vice-Chairman will be necessary for this Committee.

'The Principles and Practice of Book-keeping,' by K. Subramaniam, B.A., A.S.A.A., has been approved as a Text-book in Book-keeping by the Director of Public Instruction, Madras (Proceedings No. ^{B.B.}346 of the 14th May 1891). According to all accounts the above is an admirable Text-book on Book-keeping.

The Travancore Prince, who took his B.A. Degree at the last Convocation, has, we are glad to note, resolved to prepare for the M.A. in History and Political Economy and has, for that purpose, engaged the services of Mr. K. Sundararamaiyar, M.A., of the Kumbakonam College, for three years and a half on Rs. 400 a month.

There are now just twenty Indian youths preparing for the Civil Service Examination at Home and of these about three-fourths are Bengalis. We hear that wealthy Bengali fathers have begun to vie with one another in training up their children for the competitive Civil Service, taking every care to ensure their success.

The Lectures in connection with Technical Chemistry, by Mr. Duchesne, and on Surveying, &c., by Mr. D'Cruz, will be resumed in Pachaiyappa's College on Saturday, 1st August, at 5 p.m. Persons wishing to obtain tickets for these Lectures must apply personally at Pachaiyappa's College on the above-mentioned date, at 4-30 p.m.

The following gentlemen have been appointed to edit the Vernacular Text-books for the Matriculation Examination of 1892:

M. R. Ry.	Damodaran Pillai, B.A., B.L.		... Tamil.
"	M. Sehaguri Sastri, M.A.		... Sanskrit.
"	S. Rangiah Chetty, B.A.		... Telugu.
"	N. Sankumari Warriar, B.A.		... Malayalam.
"	C. Subba Row, B.A.		... Canarese.

Madras School of Music.—A meeting of members will be held, by kind permission of the Acting Director of Public Instruction, at the Old College, Nungambakum, on Thursday, August 6th, at 6 P.M. The business will consist of the election of eight members of council and there Vice-Presidents also. The Prov. Secretary will be glad, in the interval, to receive the applications of intending members. Address Rev. J. T. Lawrence, Vepery.

Among the educated portion of the Burmese community there has been started an Association, styled the Thathanahetta Association, for the propagation and general furtherance of the Buddhist religion. The chief aim of the Association is to print the three Pitakat palm leaves into a book and to establish a school under the management of a Buddhist European teacher. A sum of nearly Rs. 4,000 has now been collected for the Association.—*Rangoon Gazette*.

The Teachers' College, Saidapet, sent up a number of students for the Higher Examinations in Science, Art, Industries and Commerce held in April and May, the passes to which, we give below:—

	Number appeared.	Number passed.
Inorganic Chemistry	34	27
Mensuration	21	14
Surveying in Levelling	14	7
Book-keeping	36	26
Business Correspondence	46	40

An interesting census has been taken of the Indian students at Oxford. The group includes seventeen persons, in many respects representing the most highly educated classes of their fellow-countrymen. Of the seventeen, nine are Hindoos, comprising representatives of both the Mahratta and the Bengalee Brahmins; three are Mahomedans, four are Christians (one of them being a lady), and two of Eurasian or Portuguese descent, and one is a Parsee. Their ages vary from about nineteen years to thirty-one and of the whole seventeen only two are married, while a third is a widower.—*Christian Patriot*.

We hear that Mr. Nelson, the new Principal of the Law College, has sent in a proposal to the Director of Public Instruction, to the effect that the 1st and 2nd classes of the present Law classes should be immediately brought under the new Law College Regulations, so that the students of those classes might undergo training both mornings and

evenings. Messrs. M. Jagga Row Pillai, B.A. & B.L.; C. Mahadeva Iyer, B.A., B.L., and K. Narayan Row, B.A., B.L., have been appointed Assistant Lecturers.—*The Madras Mail*.

We learn that Mr. M. A. Singara Charry, the Founder and Honorary Secretary of the Anglo-Vernacular High School, Triplicane, has resigned his Secretaryship owing to pressure of other work. During the twenty-five years which have elapsed since he started the school, its strength has risen from thirty to six hundred students, and the school fund from nil to Rs. 10,000. The results which this school has been producing in the public examinations have been excellent, and have been reviewed very favourably by successive Directors of Public Instruction; though this latter success is due, no doubt, more to the ability and perseverance of the various Principals than to any efforts on the part of the Secretary.

The Rev. F. W. Kellett, M.A., has been selected by the Wesleyan Mission authorities to succeed Prof. Patterson at the Christian College. Mr. Kellett, himself the son of a Wesleyan Minister, had a very distinguished career at Cambridge and was placed in the first-class of the Classical Tripos. He then entered the Ministry and is now stationed in the Chapel Allerton Circuit, Leeds. By last mail we received the intelligence that Mr. Kellett had been elected to a fellowship at the Old College, Sydney, Sussex. It is believed that the election of a Wesleyan Minister while in circuit work to a college fellowship in one of our two great Universities is unique. Mr. Kellett has also a reputation for athletic prowess and a genial disposition. We wish Mr. Kellett all success in his new career.—*Christian Patriot*.

Mr. E. Holder, Assistant Superintendent, School of Arts, appeared in June 1890 for the South Kensington Art Masters' examination in the following subjects:—Painting, Antique, Life, Design, Elementary Architecture and Monochrome, special arrangements having been made for holding the examination in Madras under the direction of the Director of Public Instruction. We are glad to note that he has passed in every one of the subjects, obtaining first-class in three and "Excellent" in one. Mr. Holder was trained for six years in England chiefly in academic work, having been a student of the Royal Academy. He was only for a few months in South Kensington and appeared for the above examination in continuation of his course there. He has our hearty congratulations.

LITERARY AND GENERAL.

The New York City Law School is to be open to women.

Ibsen has joined the Woman's Progressive Society of Munich as Vice-President.

The London correspondent of the *Express* says it is the intention of the Government to introduce not only a local Government Bill, but a Free Education Bill for Ireland next session.

The New York State Teachers' Association has more influence in educating legislation than any other in the country. They have a committee of five able men to whom it is entrusted.

The Committee of the Registration Bills have, it is understood, decided not to take any further evidence, but it is hardly to be expected that their Report will be ready for issue before the end of July.

Mr. Herbert Spencer's new work, entitled 'Justice,' is nearly through the press. It forms the fourth division of his 'Principals of Ethics,' which he has executed out of its turn as being the most important division.

Sir Alfred Lyall, K.C.B., K.C.I.E., LL.D., in his recent Rede Lecture at Cambridge, said that the Indian were not a rude and unintelligent people; but that they were the most subtle-minded and profoundly devout people in Asia.

In congregation at Oxford, the statute authorising the establishment of a day Training College for teachers in elementary schools in connection with the University has been approved by a majority of 70 votes to 29, despite the strenuous opposition of professor Case.

Messrs. Cassell and Co. have issued *Teaching in Three Continents: personal Notes of the Educational systems of the world*, by Mr. W. Cotton Grasby. The book contains the author's observations on the systems of Education adopted in Europe, America, and Australia.

Messrs. Isaac Pitman and Sons are going to publish in their phonetic short-hand, a little volume entitled *Two Trips to India*, by Mr. T. A. Reid, giving a narrative of his professional and personal experiences during his recent visits to India as the official reporter of the Indian National Congress.

Philadelphia teachers are to hold a grand fair next December for the benefit of the Teachers' Aid and Annuity Association of that city. A year later the Boston teachers' will hold a fair for a similar purpose. Other cities will fall into line. Every large city must have a fund of \$100,000 or upwards for the benefit of the teachers who may need it.

Messrs. Deighton, Bell and Co., of Cambridge, have published *The History and Prospects of British Education in India* by Mr. F. W. Thomas. According to the *Athenæum* it is not very well arranged and is not a book of reference in which facts about Education in India can easily be found; but if read through, it gives a great deal of interesting information upon the subject.

The Rev. T. A. Preston, late President of the Marlborough College Natural History Society, has suggested that boys who are not attracted by the ordinary games should seek the exercise they require in the study of natural history in the field. A field excursion, he maintains, with much truth, will give a lad more genuine exercise of all his faculties, mental and bodily, than a day in the cricket field.

In France, manual training is obligatory. In the kingdom of Wurtemberg there are more than four hundred district schools of drawing and design. In Finland, all of the country schools are sloyd schools. In Sweden, in 1882, there were five hundred sloyd schools and a seminary for the training of sloyd teachers; and in Denmark and Norway, legislative appropriations are made for the support of such schools.

The Count von Moltke when asked to name the books which had exercised the greatest influence upon his life mentioned the following: The Bible, "Homer's Iliad," Littre's "Wonders of the Heavens," Liebig's "Letters on Chemistry," and Clausewitz's "On War." The works of Schiller, Goethe, Shakespeare, Walter Scott, Ranke and Carlyle he gave as those which he never tired of reading. The Iliad, in translation, he read when nine years old.

The Royal University of Genoa is to open a school for the practical training of travellers, giving instruction in geography, geology, botany, geodesy and other subjects required to fit them to make scientific observations and intelligently form collections of natural objects in distant lands. Similar work was undertaken some years ago by the

Royal Geographical Society of London and the Berlin Geographical Society, and arrangements are also provided in Paris for giving such instruction.

The fact, says our London namesake, of the Free Education Bill passing with little alteration, curiously illustrates the results of party government. Mr. Goschen, who may be regarded as the mouthpiece of the Ministry, admits that he does not believe in it, but he agrees with its introduction; the Bishop of London, who may be regarded as the mouthpiece of the Church, calls it a bitter pill, but he is willing to swallow it; the Conservatives generally think it goes too far, and the Liberals generally that it does not go far enough—so that it will be carried by the votes of members of whom one half disapprove of the principle and the other half of the details. The Bill is a house of cards, and everybody feels that if any card is removed the whole structure will come toppling down.

Elementary education is compulsory for both sexes in Peru and is free in the public schools that are maintained by the municipalities. High schools are maintained by the Government in the capitals of the departments and in some provinces pupils pay a moderate fee. There is in Lima a central university called "Universidad de San Marcos," the most ancient in America; its charter was granted by the Emperor Carlos V.; it has faculties of jurisprudence, medicine, political science, theology, and applied science. Lima possesses a school of mines and civil engineering, created in 1874, with good collections and laboratories. There are in the capital and in some of the principal towns private high schools, under the direction of English, German, and Italian teachers. Lima has also a public library, with a rich collection, besides the one of the university and school of mines. There are two minor universities at Cuzco and Arequipa.

Special courses of lectures have been opened in St. Petersburg, in the St. Alexander Hospital, for women who are working there as chemists' apprentices. Women are allowed to serve in this capacity in Russia if they have followed the full course of a girls' high school, or have passed an examination equivalent to that demanded of the male candidates, including as much Latin as is required of the men. A practical difficulty arose, however; viz., that women were found to be much slower in mastering the profession of chemist than men, because they were insufficiently grounded in botany, chemistry, mineralogy, etc. In order to remove the difficulty the Town Hospital Commission

has opened special courses in the above-named hospital, where women can receive instruction in pharmaceuticals, botany, and chemistry. The necessary funds are provided by two anonymous members of the Hospital Commission. The lectures are to be delivered by professors of the Military Medical Academy.

The new Italian Minister of Education, Villari, is justifying to the full the high expectations entertained of him. He has already introduced very much more strictness of organization into the business of his department; and one visible sign of the new order of things is the regularity with which the *Bollettino Ufficiale dell' Istruzione* is now issued weekly, containing reports of the whole business of the department up to the date of issue, whereas formerly it was months behindhand. Another change, which is of much importance to foreigners, as well as to natives of the country, is the order that all public libraries under government control, including those of the Universities, shall be open until 5 o'clock in the afternoon instead of 3, except where there are arrangements for opening also during the evening in winter.

[When will the disgrace of India having no public libraries be wiped out? Ed.: *M. J. of E.*]

Higher education in the West Indies is advancing with rapid strides, and can now bear testing by English standards. Harrison College at Barbadoes, and the High School, Jamaica, turn out a succession of pupils who distinguish themselves in wider spheres. Many old Harrisonians have done brilliantly at English and American universities. Eight girls out of ten sent up from Queen's College at Barbadoes passed this year in the Cambridge Locals—one with honours—and much local interest is being excited by the arrival of a trained Kindergarten mistress from England. West Indian girls were formerly placed in a very different position; they had either to suffer exile from home at English or French schools, or grow up without sufficient intellectual training. But the public spirit which is now so marked a feature of life in the larger West Indian islands is altering all this, and is bringing about a social revolution by wise and quiet processes.

We rejoice, says our London namesake, that both at Oxford and Cambridge the proposal for establishing a day training college has been adopted by a large majority. At first we can expect only a small number of student teachers to take advantage of them, but these will be the pick of the profession. Professor Dicey, in a spirited reply to Professor Case's croakings about the admission of an inferior class, and the future

degradation of an Oxford degree to which it would lead, asserted, from his experience as a lecturer, that the men for whom they were asked to provide would benefit the University no less than they would themselves be benefited. Their time would not be absorbed by unlimited cricket and foot-ball and strenuous idleness. "We who have been cockered and helped and crammed, shall we deny our help—a help that will cost us nothing—to an honourable, self-denying, hardworking, meritorious class? For the benefit of ourselves, too, let us introduce more and more of this class, to be a backbone of our University."

Our London namesake says, Dr. Percival remarked to the Headmasters' Association, there still survive a vast number of schools of the poorer sort, and naturally the worst specimens will be found among the private venture schools. For the efficiency of endowed schools, the statutes and the governing body are some sort of guarantee. "To keep a school in France a man cannot, as in England, be perfectly ignorant and inexperienced in his business; neither can he, as in England, be a ticket-of-leave man, for the French law declares every man who has undergone a criminal condemnation incapable of keeping a school. Neither can he have his schoolroom in ruins, or under conditions dangerous to his pupils, to his pupils' health, or morality." So wrote Mr. Arnold some twenty years ago, and though the black sheep of the profession are undoubtedly rarer than they were when he wrote, all honest teachers, whether public or private, must desire some lawful means of purging the profession. Such an engine will be provided by the Teachers' Registration Act.

We trust, says the Cape Town *Educational News*, that Mr. Rhodes' Teaching University scheme is only maturing, and not even temporarily shelved. It has not been so frequently mentioned in educational circles since the candid and generous utterances at Stellenbosch. We have not been able perfectly to understand what Mr. Rhodes exactly proposes as the work of his Teaching University, but we are led to believe that a free gift of £100,000 towards University Education is at present the most definite and tangible part of the scheme. We understand what that means to a colony like this, whose public annual expenditure for education is just about that amount, and we hope that Mr. Rhodes will soon see his way to make the proposed investment. A gift horse of such magnificent proportions and value has never come in the way of our colonial education before, and it would be nothing short of a national calamity were we to lose his services through too minute an inspection of his molars. Every effort should be strained by those possessed

203

of "vested interests" to see what can be done by consultation, by magnanimity, and true patriotism to help Mr. Rhodes to a solution of the problem.

With the decision of the Education Commission respecting the petition from the Weimar "German Women's Reform Union," the woman's movement in Germany enters on a new stage of its development. This petition to the Parliaments of the different States asks for the establishment of a girls' gymnasium, or permission for girls to pass the Abiturient (final school) examination at a boys' gymnasium, and also for the possibility of obtaining a certificate of satisfactory preparatory work, which shall admit women to the University course. Notwithstanding the bitter opposition which these reforms meet with on many sides, and the long and zealous speech of the Government member against them, the Education Commission from the Prussian House of Deputies has rejected his proposal to shelve both parts of the petition and pass to the order of the day, and has recommended its second part (permission for girls to pass the Abiturient examination) to the consideration of the Government. The further discussion of this all-important social question is thereby rendered certain.

[Strange that highly cultured Germans should endeavour to keep their women in a state of semi-servitude.—Ed.: *M. J. of E.*]

For the first time in the history of university work, the University of the City of New York has conferred pedagogical degrees. Fourteen graduates received the degree of Doctor of Pedagogy, and twelve the degree of Master of Pedagogy. It is a remarkable fact that the average age of the doctor's class is over fifty years, all of whom have been faithful students of educational science for four years, and amply earned the honorable distinction they have received. It is safe to say that no class ever graduated from any university since time began, the average of whose members is as old as this. The members of both these classes are engaged in teaching, most of them being principals or heads of departments, in this and surrounding cities. Since the commencement of lectures on pedagogy, four years ago, more than five hundred teachers have been in attendance; a School of Pedagogy has been organized, and endowed as a department of university work; a definite course of study marked out, a good library commenced, free text-books pledged, and definite degrees promised. Now, for the first time, education is recognized as equal in professional rank to law, medicine, and theology. Lectures are given five days each week at 4 p.m., and on Saturdays at 10 a.m., from

October to May, thus accommodating those who are engaged in teaching.
—*Boston Journal of Education*.

The British Vice-Consul at Liège, in his last report, refers to the educational advantages of Liège for English youths. It is an important educational centre. It possesses a fine University—founded in 1817, and at present undergoing extensive alterations and improvements—which is attended by over 1,500 students. The buildings comprise lecture-rooms, a library of over 200,000 volumes, academic collections, a natural history museum, and excellent appliances for instruction in the physical sciences. There are over seventy professors, who lecture on the various subjects taught. In connexion with the University are a school of medicine, an "Ecole des Arts et Manufactures," a school of mines, a special school for electrical engineering, a pharmaceutical institution, and a training school for teachers. A few years ago the Belgian Government granted funds for the erection of new physiological, physical and chemical laboratories. The advantages offered by Liège from an educational point of view do not, the vice-consul observes, appear to be recognised in the United Kingdom, for while the youth of almost all the other European nations are fairly, and in some instances largely, represented at the Liège University, the British students rarely number more than five or six at a time, and sometimes not even that. Liège, nevertheless, offers peculiar advantages to the English youth completing his education, particularly in these days when the knowledge of foreign languages is becoming more and more essential to success in life. The French spoken in the district is the best in Belgium, and a knowledge of it may be acquired while the theoretical studies are being pursued at the University, or practical experience gained in one or other of the large industrial establishments in the neighbourhood. Moreover, the cosmopolitan nature of the students themselves makes it quite possible for the foreigner, by the judicious selection of his companions, to perfect himself colloquially in whatever language he may have studied. The educational advantages of Liège are further enhanced by the possession of a fine conservatoire of music and an "Académie des Beaux Arts," &c.

[The writer might have spoken of the charming country which surrounds Liège.—Ed.: *M. J. of E.*]

We seldom allow jokes, says the *Mining Journal*, to creep in amongst our 'Notes' but the following one from the so-called funny columns of a contemporary is worth repeating, and so we give it: A distinguished professor was lecturing one day on mineralogy. He had before him a

204

number of specimens of various sorts to illustrate the subject; but a roguish student for sport slyly slipped a piece of brick among the stones. The professor was taking these up one after another and naming them. 'This,' he said is a piece of granite. This is a piece of felspar, &c. Presently he came to the brickbat. Without betraying any surprise or even changing the tone of his voice, he said—'This, gentlemen, is a piece of impudence.'

A writer in a provincial contemporary gives some interesting reminiscences of the late Dr. Morell as a school inspector. Here is a curious story which he tells of "the mechanical ingenuity of a man in Yorkshire," and which he declares Morell narrated to him in sober earnest. This Yorkshire schoolmaster, "on a certain inspection-day was to take a class for some subject which I forget. Morell noticed that the boys stood in a perfect semi-circle, and that each boy stood exactly as his neighbour stood. He noticed also that every few minutes the master opened the lid of a desk at which he was standing. This at last excited Morell's curiosity, and he asked the master for an explanation, which was exactly what the master wanted. It appears that this ingenious brother had a wonderful piece of mechanism running round the semi-circle, with a connecting rod running up the pillar supporting his desk. When he opened his desk it was to touch a spring which brought the whole mechanism into play, and every boy not standing exactly as he should was pricked in the calf by this wonderful contrivance. I had a shrewd suspicion that Morell was poking fun at me, but he assured me he was not, and therefore I tell the tale as it was told to me.

REVIEWS AND NOTICES OF BOOKS.

—

OUTLINE HISTORY OF EDUCATION, with Chronological Table, Suggestions and Test Questions. By J. A. REINHART, Ph.D. New York and Chicago: E. L. Kellogg and Co., 1891.

We have great pleasure in recommending this little book, consisting of some 70 pages, to all those teachers who, without having much time or money at their disposal, are desirous of becoming acquainted with the history of Education. All those under training would do well to carefully study it, whether its subject forms part of their examination or not. Even candidates for the L.T. Degree would find in it a useful outline of the whole range of Educational History.

OUTLINES OF THE PRINCIPLES OF EDUCATION. By J. A. REINHART, Ph.D.
New York: Kellogg and Co.

This forms a companion Volume to the History of Education noticed above. The two together form a complete compendium of the History and Science of Teaching. They are within the reach of all, and should be in the hands of all those who have not the opportunity of studying the larger treatises.

PESTALOZZI. His Educational Work and Principle. By AMOS M. KELLOGG. New York: Kellogg and Co.

This little book of some 30 pages contains all that the ordinary teacher requires to know of one who revolutionised the education of his day. Of course it cannot be mentioned in the same breath with the inspiring account of the same reformer in *Quick's Educational Reformers*. But considering its size and price—it is a wonder in its way.

TENNYSON. The Coming of Arthur and the Passing of Arthur, with Introduction and Notes. By F. J. ROWE, M.A., Professor of English Literature, Presidency College, Calcutta. London: Macmillan & Co.

Mr. Rowe is well known as a successful Editor of many English Classics. His Edition of Tennyson is no exception to the rule. The general and the special Introduction are highly creditable performances, and both need and deserve the closest study. The Notes leave nothing to be desired. We cannot recommend it as a suitable reading book for the ordinary Indian student. It requires a close acquaintance with Arthurian legends; and its constant allusions to mythical personages would be a stumbling block to all but the advanced student in English.

SOUTHEY'S LIFE OF NELSON, edited with Introduction and Notes. By MICHAEL MACMILLAN, B.A., Oxon., Professor of Logic and Moral Philosophy at Elphinstone College, Bombay. London: Macmillan and Co.

We gladly welcome Southey's Life of Nelson as a pleasant reading book for Indian students. It smells strongly of the sea, and is therefore invigorating. It teems with adventures and battles, and is therefore calculated to incite the imaginative and heroic faculties. It tells in simple and pure English the doings of one of the greatest of England's heroes, and cannot help inspiring the young with respect and admira-

tion for the heroism which formed an inseparable part of Nelson's character. If read intelligently and with the aid of a good map, the educative benefits resulting therefrom would be many and great. As might be expected, Mr. Macmillan's Introduction contains an excellent analysis of Southey's style and Nelson's character. The plans of the chief battles described are good, while the Notes are concise and to the point.

SHAKESPEARE. KING LEAR, ANTONY AND CLEOPATRA, with an Introduction and Notes. By K. Deighton. London: Macmillan and Co., 1891.

We were very favourably impressed when reading through the Introduction to this play. Mr. Deighton is a master of English, and in the choicest language gives a masterly analysis of the play and its leading characters. To those who did not know the play itself, Mr. Deighton's Introduction, would be the greatest inducement to its thorough study. We are thoroughly acquainted with Mr. Aldis Wright's editions of the different plays of Shakespeare, issued by the Clarendon Press. We admit the erudite learning and ability which Mr. Wright has brought to bear on his arduous work; but we cannot help thinking that for the ordinary reader and student, Mr. Deighton's editions are preferable on the score of lucidity, simplicity and conciseness. We have known young students who have been repelled by the learned heavily-laden notes, abounding—to them—in unintelligible allusions, which Mr. Wright has appended to his various editions. For the Indian student, at least, Mr. Deighton's editions are much to be preferred. His edition of King Lear is no exception to the rules. Mr. Deighton has prefaced his edition of Antony and Cleopatra by an able Introduction, which contains an outline of the play and gives a subtle analysis of the character of the play itself, and of the chief actors in it. The Notes explain all that is necessary to be explained in the allusions, grammatical, and textual difficulties. This edition is well adapted to the use of Indian Students.

"AN ELEMENTARY TREATISE ON ALGEBRA," Part I, by S. C. BASU, B.A., Member of the London Mathematical Society. Third Edition. S. C. Auddy, Bookseller, 58, Wellington Street, Calcutta. Price Rs. 1-12.

We have gone through the book carefully and are able to say that it is superior in every way to many books on the same subject. It has

reached a third edition in so short a time as three years. The author has bestowed much labour and skill in the methodical arrangement and clear exposition of the text and much originality in many of the examples given for illustration and exercise. We agree with the author in thinking that some knowledge of equations is necessary for the proper understanding of the Theory of Divisors and Multiples and of Fractions; but, in the place of Chapter VIII. (Simple Equations), a chapter on "Identities"—*conditional and unconditional*—with the fundamental axioms on which operations with them chiefly depend, would have served the purpose equally well and left 'Equations' intact. The book, on the whole, must be useful to teachers by its numerous examples. The get-up and the general style in which the book is printed are in no way inferior to English Publications and reflect much credit on the Baptist Mission Press, Calcutta.

THE GOLDEN TREASURY OF THE BEST SONGS AND LYRICAL POEMS in the English Language. Selected and arranged with Notes by FRANCIS TURNER PALGRAVE, Professor of Poetry in the University of Oxford. Revised and Enlarged. London: Macmillan and Co., 1891.

We took up this little book in a mechanical way to peruse before reviewing it. It was with the greatest reluctance that we laid it down again. Such a collection of the Choicest English Lyrical Poems we never came across before. Old Favourites, and charming Poems we had never seen before met our delighted eyes on every page. We found in it food for all tastes and all ages, and nothing but what was chaste and ennobling. Every phase of human experience, every noble sentiment, finds in these pages its fittest and choicest expression. It is gratifying to know that the merits of the collection of short poems are already appreciated in India, that in many schools it is a standard work, and that it is generally better known, comparatively speaking, than it is in England. Messrs. Macmillan and Co., by their editions of the best English Classics have done much to create a taste for what is best in English Literature among the native students. But if we were asked which particular book was calculated to effect, and had effected, the most good in creating a taste for English Poetry in India, we should unhesitatingly put the choice little volume under review in the first rank. It is ably edited both as regards the Introduction and Notes, while the arrangement and collection of the Poems themselves leave nothing to be desired. It is beautifully bound and printed, and is a marvel of cheapness.

ESSAY ON THE LIFE AND WRITINGS OF ADDISON. By LORD MACAULAY. With Introduction and Notes by FREDERICK J. MOSS, B.A., Cantab., Acting Principal, Central High School, Mercara. Madras: V. Kalyanaram Iyer, 1891.

We congratulate Mr. Moss on the thorough and successful manner in which he has edited Macaulay's interesting Essay on Addison. In the Introduction he has given a succinct but very readable account of the life of Macaulay, and has said enough to induce the *bonâ fide* student to go to the fountain-head, and drink deep of the most fascinating biography we have ever read, viz., Trevelyan's Life of Lord Macaulay. A very necessary allusion to Macaulay's rhetoric and partisanship is made by Mr. Moss, as explaining the warped judgment which so clear-headed a man often passed on men and things. The chapter on Macaulay's style is a good one and the examples are well chosen, and are the more valuable because mostly culled from the accompanying Essay. The native student would do well to analyse the Essay generally after the manner indicated by Mr. Moss. It seems curious to an Englishman that a fairly simple English classic like the Essay on Addison should require so many notes to elucidate the text. But it must not be forgotten that they are written for those to whom English is a foreign language. We notice, however, a note, here and there, which seems superfluous, and might well have been omitted. But taken all in all, we consider the present edition of Macaulay's Essay on Addison to be the best which has yet been offered to the Indian student.

ACKNOWLEDGMENTS.

We have to acknowledge with thanks the receipt of the following BOOKS:

HEReward THE WAKE, by Charles Kingsley. London: Macmillan & Co.
MISSIONARY WORK IN INDIA, by S. Sathianadhan, M.A., LL.B., Madras.
PROCEEDINGS OF THE MAINE HISTORICAL SOCIETY (Madras) October 1890.

MAGAZINES.

All the usual Magazines have been received.

THE 'GOWN' CONTROVERSY.

[We extract the following amusing and pathetic appeal of Dr. Wilson from the Report of the Presidency College, just published. The learned Professor has our liveliest sympathy.—EDITOR.]

With reference to the inquiry addressed to each Professor of the College, whether he has complied with the order of Government requiring him to wear the gown pertaining to his University degree whilst

engaged in discharging his professorial duties, I have the honour to state that I have not complied with the order, and that I cannot for a moment believe it was intended by Government to apply to me or to others similarly situated, if others there be. Incidentally, I would remark that I am not at all sure there is any gown pertaining to the degree which I hold, as I never saw a Professor in the University of Heidelberg where I graduated, or in the University of Berlin where I studied for some time, wearing a gown, and until I came to this country and observed graduates, not, it is true, of my own, but of other German University, wearing gowns which they assured me they were entitled to wear, I was under the impression that garments of this description were as unknown in Germany as they are in the Universities of most other countries not included in the British Empire. The gown which, rightly or wrongly, I have adopted, and which hitherto I have fortunately had to wear on rare occasions, is one which differs greatly from British pattern. It does not hang over the shoulders, but fastens across the chest, hangs down very nearly to the feet, has enormous sleeves which are attached by tapes to the wrists, and is provided with a velvet collar, and velvet facings down the front and round the sleeves. Its weight is slightly over four pounds. It would be no slight penance in a climate like that of Madras for a considerable part of the year, to sit for three or four hours a day, dressed in a gown of this description, even though the room were well ventilated and a punkah swinging overhead, and it certainly would not be conducive to efficiency in teaching, although that teaching consisted in nothing more than reading from notes or books. But I submit that I do not sit whilst I teach, I never leave my feet, but am engaged the whole time in walking up and down a table 24 feet in length, or rather two tables of this size, one behind the other; there is no punkah in my room, and it would be of no use to me if there were one, and the temperature of the room, in which I lecture is very often nearer 100° than 90°. But all this is nothing in comparison with the fact that it is Chemistry which I teach, and I am constrained to repeat that I do not and cannot believe that it was the intention of Government that any person engaged in teaching Chemistry should wear a gown of any description whilst so occupied. Not only is it a physical impossibility to perform many experiments whilst so encumbered, but the inconvenience, and in many cases the positive danger, which would accompany experimental work performed under such conditions is so great, that, I submit, Government would incur a serious responsibility by ordering it. This danger and inconvenience, however, no Professor is likely to incur. The result of the enforcement of the order must inevitably be that Professors and Teachers of the subject will not make their

teaching of Chemistry experimental at all. After one or two accidents they will not run further risk of spoiling their gowns, of breaking their apparatus, and of injuring themselves and their pupils; they will simply read books and notes to their class. Too many, I fear, do this already, but it will be a sad day when Government itself provides not merely an excuse, but a reason and a complete justification for such teaching.

I trust these remarks will be regarded as containing a sufficient reason for not having complied with the order of Government. If otherwise, if Government insist that, whilst engaged in lecturing, I should wear the gown I have been in the habit of wearing, I shall have to request that my lecture room, like that of all the other professors of the college, may be provided with a punkah. Nothing can exceed the reluctance and regret with which I should make this request as it means that the whole character of my teaching would undergo change, and the object which I have steadily had in view of making it year by year more experimental in its nature have to be abandoned. The Director of Public Instruction, I believe, has been granted power to exempt from compliance with the order those Professors and their Assistants who are engaged in teaching experimental sciences, of which Chemistry is the chief, and I trust that after this representation, along with the representation made by my Assistant Mr. Hobday, which I have already forwarded, the Director will see fit to exercise that power in my Assistant's case as well as in my own.

CANON WOODARD.

The Rev. Nathaniel Woodard, who died recently in his eighty-first year, though he has no claim to be reckoned among Quick's "Educational Reformers," will be remembered as the originator and organizer of a new class of schools which are one of the most marked educational features of this generation. It was in 1848 that Mr. Woodard, then an obscure curate at Shoreham, who had graduated at Magdalen Hall, Oxford, with an ordinary degree, wrote a pamphlet entitled 'A Plea for the Middle Classes,' which had the good fortune at once to attract the attention of Mr. Gladstone and other leading politicians. Mr. Woodard was the first to proclaim, what has now become a platitude of the platform, that while the education of the poor was amply provided for by the State, and that of the rich was in their own hands, the middle classes had been left out in the cold, and had, moreover, been robbed of the religious foundations bequeathed for their special benefit. He urged that it was the bounden duty of the Church to step into the breach and to take the lead in providing intermediate education, as it had already led the

way to a national system of elementary education. In short, Mr. Woodard could fairly claim to have anticipated the watchword for which Mr. Matthew Arnold may be said to have taken out a patent—"Organize your secondary education"—with this important proviso and limitation, that his organization was on strictly classical lines.

But if we wish to see the scheme as it developed itself in his fertile brain we must turn not to the pamphlet, but to a letter addressed to Lord Salisbury in 1869. All England was to be mapped out into five divisions, and in each division there was to be a large educational centre. Each of these centres was to be sufficiently endowed to support a provost and twelve senior fellows or canons to carry on the work of education. With them were to be associated twelve non-resident seniors, elected from among the gentlemen of the district, and on the board of twenty-five thus formed devolved the guardianship of the Church education for the district. At each centre were to be founded boarding schools of three grades—one for the rich, one for the middle class, and one for the poorer tradesmen. The funds of all these schools were to be in common, and the profits accruing, after providing for a sinking fund, were to be shared among the fellows and probationary fellows—that is, the masters of the schools, who should, if possible, all be clerics. The estimated capital required for launching the scheme was a million and a half. It is needless to add that this vast project never was, and never could be, realized; yet, writing in 1869, Mr. Woodard boasted that a quarter of a million had already been sunk.

The flaw in Mr. Woodard's scheme, which prevented it from ever becoming more than a magnificent fragment, was that he put the Church of England first and education second. In his letter to Lord Salisbury he speaks with horror of royal grammar schools being managed by "illiterate tradesmen and, what is worse, Dissenters." He held that "the mass of the people prefer having their children educated by clergymen; they very properly think that it is more respectable, and it is a passport in society." Hence the Woodard schools were, in fact, seminaries, or if, as Lancing College did, they entered the ranks of public schools, it was in contravention of the founder's statutes. Yet, in spite of his ecclesiastical bias, Canon Woodard was a true friend to education, and others have reaped where he sowed. He was the first to convince the public that the provision of schools could not be left to isolated individual efforts, and the societies of SS. Mary and Nicholas and of SS. Mary and John, which he founded, gave the hint for that educational co-operation which has produced not only the closely affiliated County Schools of Canon Brereton, but also the girls' public day schools.—*The Athenæum*.

GOVERNMENT GIRLS' SCHOOL, PALGHAT.

The three Government Girls' Schools Bhajanakutam, Vatakkantam, and Lakshminarayanapuram, were formerly maintained by the Palghat Municipality, but in April 1889 they were constituted Government institutions, and have since that time been entirely supported from Provincial Funds. No trouble or expense has been spared to make these schools efficient. Increased scales of establishment have been sanctioned, in order to provide a sufficient number of teachers of higher qualifications, and also improved and more spacious accommodation. Good and suitable school furniture and apparatus have also been provided. In addition to incidental expenses for furniture and apparatus, these schools cost monthly the sum of Rs. 130, i.e.—

The Bhajanakutam School	...	...	Rs. 31
The Vatakkantam	"	...	" 50
The Lakshminarayanapuram School	...	...	" 49
Making an annual total of	...	...	Rs. 1,560.

When these schools were taken over from the Municipality there were 106 pupils on the rolls, and two of them were of the Primary Standard. Now there are 183 pupils on the rolls, and two are of the Lower Secondary Standard. There has thus been some progress made, but still much remains to be done. The attendance is not by any means proportionate to the number of pupils of school-going age in the villages in which the schools are situated; and this is a matter which rests chiefly with the parents to remedy. Palghat is favoured in being the only Town in the Southern and Western Circles and probably in the Presidency which has three well-appointed Government Girls' Schools. And in many towns as yet there is not even one, and it only remains for the inhabitants to show their appreciation of the efforts made for the progress of female education in the town by sending their daughters to school regularly and punctually, and keeping them there as long as possible. At present the Fifth Standard is the highest, but the head teachers are quite competent to teach up to the Sixth Standard, and the moment any of the pupils show a desire to prosecute their studies to a still higher standard, every effort will be made to provide the means by appointing more highly qualified teachers.

The results of the last examination of these schools were satisfactory in every respect, but only a small proportion of children were found eligible by attendance to earn grants.

In the Bhajanakutam School 38 pupils were eligible, and of these 23 passed for merit grant and 10 for ordinary grant. In the Vatakkantam

School 51 pupils had made the required number of attendances, and 24 earned merit grant and 14 ordinary grant. In the Lakshminarayana-puram School 40 pupils were eligible, and 24 passed for merit grant and 113 for ordinary grant. Thus in the three schools 129 pupils were presented for examination, and 71 passed for merits, and 58 for ordinary grant. These are the results of the examination held six months ago, but since then the Vatakkantam and Lakshminarayana-puram Schools have shown a satisfactory increase in numbers and give promise of improved results at the next examination.

UNIVERSITY OF MADRAS.

The following Candidates have passed the recent FIRST L.M.S. DEGREE EXAMINATION:—

Register Number.	Name.	Where educated.
SECOND CLASS.		
2	Appadurai Mudali, Colundalur...	Medical College, Madras.
7	Bowie, Ida	Do.
11	Coombes, George Noble	Do.
14	Devadasan, Samuel	Do.
15	Dias, J. Raymond	Do.
28	Hartnett, Julie	Do.
43	Lakshmanaperumal Pillai, R.	Do.
52	Narasinga Rau, Tanjore	Do.
54	Narayana Pillai, Vailur N.	Do.
59	Peapson, Jane Anne	Do.
68	Ratnam Pillai, Cartikesa Pillai	Do.
70	Rodriguez, James	Do.
71	Sahbesani, Venkatasubha Aiyar	Do.
76	Smith, H. Wilmot	Do.
79	Sundaram Mudali, Ravapuram A.	Do.
91	Venkataramanayya, Bagenahalli	Do.
95	Webster, Charles George	Do.

The following Candidates have passed the recent SECOND L.M.S. DEGREE EXAMINATION:—

SECOND CLASS.		
4	Berry, Alfred Eugene	Medical College, Madras
5	Coelho, James	Do.
6	Ekambaram Pillai, Tanjore	Do.
9	Harris, James	Do.
10	Harrocks, Oswald	Do.
11	John, Samuel	Do.
12	Krishnaswami Nayudu, Pokala	Do.
13	Madhavan Pillai, K.	Do.
15	Phillips, Richard Henry	Do.
16	Ramaswami Nayudu, Janakara Venkata	Do.
18	Subharaya Madali, Timiri	Do.

The following Candidates have passed the recent FIRST M.B. and C.M. DEGREE EXAMINATION:—

3	1 Rama Rau, Gulvadi	Medical College, Madras
4	2 Teyyanni Menon, Ambat	Do.

Register Number.	Name.	When educated.
------------------	-------	----------------

The following Candidate has passed the recent SECOND M.B. and C.M. DEGREE EXAMINATION:—

1	Natjunda Rau, M. C.	First CLASS. ... Medical College, Madras.
---	---------------------	---

The following Candidate has passed the recent PRELIMINARY SCIENTIFIC EXAMINATION:—

2	Chandrasekharan,	Presidency College and Medical College, Madras.
---	------------------	---

(By order.)

W. H. WILSON, Ph. D.,

Registrar.

UPPER SECONDARY EXAMINATION, MAY 1891.

COMPULSORY SUBJECTS.

The following Candidates are declared to have passed in the branches or portions of branches named in column 7 for which alone they were specially permitted to come up under Article 6 of the Upper Secondary Examination Notification:—

Register Number.	Name of Candidate.	Father's Name.	Age.	From what School coming up.	Vegetarian brought up.	Branches or portions of branches in which passed.
56	Maharajapuram Ven. M. Krishna Aiyangar.	...	19	Chengalvaraya	Tamil	I, II, IV
59	Combacorum Srin. C. Aravamudan Aiyangar.	...	19	Do. do.	Do.	II, III, IV.
61	Padijela Narayana P. Narasingappa Rao	...	18	Do. do.	Do.	II, III, IV.
65	Ramaiah Chetty T. R. Nambardhanayya	...	19	Do. do.	Do.	II, I, I, IV.
66	Tienvadi S. Narayana T. Subrahmanya Sastri	...	21	Do. do.	Do.	II, IV.
84	Guntur L. Subram. G. Ramakrishna	...	19	Private Study	Do.	I, Translation only.
85	Ustale Patterson George Patterson	...	22	Do. do.	Tamil	I, II.
86	Henrietta W. Ber. H. B. Bernard	...	20	Do. do.	(Sec. B)	I & IV.
89	Devanarayana Sar. S. Sengunda Natar	...	19	Do. do.	Tamil	II.
89	V. Srinomai Eleazar	...	29	Do. do.	Do.	II.
91	P. Ranganatha Am. L. Nalamuni Nayadu	...	22	Do. do.	Telugu	II.
92	Rama Rao G. Gaisford	...	25	Do. do.	...	I.

(By Order.)

Office of the Commissioner for the U. C. S. Examinations,
Madras 4th July 1891.

F. H. ELLIOT,
Secretary.

EXAMINATIONS IN SCIENCE, ART, INDUSTRIES AND COMMERCE—APRIL AND MAY 1891.

The following Candidates are declared to have passed the HIGHER EXAMINATIONS IN SCIENCE, ART, INDUSTRIES AND COMMERCE held in April and May 1891:—

Number in Order of Merit.	Register Number.	Name of Candidate.	Where educated.	Marks obtained.
---------------------------	------------------	--------------------	-----------------	-----------------

HIGHER EXAMINATIONS.

SYLLABUS No. 6.—HYDRAULICS AND HYDRAULIC ENGINEERING PRELIMINARY.

Maximum Marks, 100.

FIRST CLASS.

1	182	John Kuriyan	College of Engineering	64
---	-----	--------------	------------------------	----

SYLLABUS No. 10.—EARTH WORK, ROAD WORK, PRELIMINARY.

SECOND CLASS.

2	174	R. Sundaram Aiyar	College of Engineering	
---	-----	-------------------	------------------------	--

SYLLABUS No. 7.—BUILDING MATERIALS AND CONSTRUCTION PRELIMINARY.

FIRST CLASS.

1	185	P. N. Ramachandra Aiyar	College of Engineering	67
2	174	R. Sundaram Aiyar	Do.	65

SECOND CLASS.

	170	S. Iswara Sastri	College of Engineering	
--	-----	------------------	------------------------	--

SYLLABUS No. 9.—SURVEYING, LEVELLING AND SETTING-OUT (PRELIMINARY).

Maximum Marks, 100.

FIRST CLASS.

1	162	Pelesetti Ranganaraku	College of Engineering	85
2	185	P. N. Ramachandra Aiyar	Do.	80
3	170	S. Iswara Sastri	Do.	78
4	178	A. Sundareswara Aiyar	Do.	76
5	190	D. S. Sankara Aiyar	Do.	
	168	Thomas Robert Jones	Do.	
6	177	T. A. Ekambaram Pillai	Do.	73
7	189	T. Parthasarathi Nayudu	Do.	
8	183	Lalgudi N. Appadurai Aiyar	Do.	68
9	191	V. M. Jambulinga Mudali	Do.	67
10	169	James William Hay Ellis	Do.	66
11	174	P. Royal Pillai	Do.	65
12			Do.	62

SECOND CLASS.

19	G. S. Paghunatha Chari	Teachers' College, Saidapet.	
24	Nagar Ananda Rau	Do.	
25	O. Ganapathi Pillai	Do.	
27	P. G. Vanchi Aiyar	Do.	
41	B. G. Poraswami	Do.	
58	C. V. Ramachandra Aiyar	Do.	
66	P. R. Aiyaswami Aiyar	Do.	
151	Lakshminarayana A. Krishna Aiyar	College of Agriculture	
154	Vengal R. Venkataramana Aiyar	Do.	
181	Tadimetri Subba Rao	College of Engineering	

Number in Order of Merit.	Register Number.	Name of Candidate.	
---------------------------	------------------	--------------------	--

SURVEYING, LEVELLING AND SETTING-OUT ADVANCED.

SECOND CLASS.

166	Kalpathi D. Subramania Aiyar	College of Engineering	
-----	------------------------------	------------------------	--

SYLLABUS No. 18.—MECHANICAL DRAWING (PRELIMINARY).

SECOND CLASS.

173	William Charles Hamilton Littlewood	College of Engineering	
-----	-------------------------------------	------------------------	--

PLAN-DRAWING AND ESTIMATING (PRELIMINARY).

SECOND CLASS.

4	C. K. Ramachendra Aiyar	Private study	
---	-------------------------	---------------	--

SYLLABUS No. 67.—BOOK-KEEPING (PRELIMINARY).

Maximum Marks, 200

FIRST CLASS.

1	21	Kangayyam G. Venkatasubba Aiyar	Teachers' College, Saidapet.	179
2	92	S. Vaidyanatha Aiyar	Private study	166
3	86	John Manuel Castilino	Teachers' College, Saidapet.	167
4	208	Kunnar Ranganadha Mudali	Private study	151
5	53	Pallavaram Srinivasachari	Teachers' College, Saidapet.	143
6	16	M. R. Sudaresa Aiyar	Do.	144
7	18	Kuchibhotla Prakasa Rao	Do.	139
8	64	Tiruvannamalai H. Jagannatha Aiyar	Do.	138
9	67	C. S. Bhagavanta Rao	Do.	121
	29	V. S. Vaidyanatha Sastri	Do.	
10	37	M. H. Venkateswara Aiyar	Do.	121
	40	P. Peter Samuel	Do.	
	65	T. S. Ramasubbayya	Do.	
13	72	Sripada Subbaya	Do.	120

SECOND CLASS.

5	C. B. Kuppuswami	Private study	
13	Bhatlagundu R. Venkateswami Aiyar	Teacher's College, Saidapet	
23	Thyil Kunhi Raman	Do.	
26	M. Venkatarama Sastri	Do.	
31	V. S. Ramaswami Aiyar	Do.	
34	K. S. Srinivasa Sastri	Do.	
36	S. R. Srinivasa Aiyangar	Do.	
62	C. Minakshisundaram Aiyar	Do.	
71	Modur Venkataramayya	Do.	
75	N. Seshagiriachar	Do.	
76	Conjeevaram Ramaswami Sastri	Do.	
83	S. Matharbuttham Aiyar	Do.	
85	K. Desika Aiyangar	Do.	
87	N. Sessa Aiyar	Do.	
88	Majeshwar Tammanayya	Do.	
94	Pondicherry Sivaraja Mudali	Private study	
194	Mamandur Deraswami Aiyangar	Cengalvataya Narakar's Commercial and Technical School	
195	Pudukota S. Ramaswami	Do.	
198	Thundi Kuppuswami Chetti	Do.	
199	Cacarla Vasudevayya	Do.	
200	Kumbhakonam Krishnama Chari	Do.	
201	Pilladi Subramania Aiyar	Do.	
202	T. M. Satagopa Chari	Private study	
203	Mudabusi Seshayya	Do.	

Number in Order of Merit.	Register Number.	Name of Candidate.	Where educated.	Percentage of Marks obtained.
---------------------------	------------------	--------------------	-----------------	-------------------------------

SYLLABUS No. 70—BUSINESS CORRESPONDENCE AND TRANSACTIONS PRELIMINARY.

FIRST CLASS.

1	61	A. Koppaswami Aiyar	Teacher's College, Saidapet.	107
2	86	John Manuel Castilino	Do.	168
3	10	C. E. Venkata Ramana Aiyar	Do.	153
4	23	Thyil Kunhi Ramu	Do.	154
5	24	Naimpalli Narasinga Rao	Do.	152
6	25	V. S. Vaidyanadha Sastri	Do.	150
7	70	Sedambi Subba Rao	Do.	146
8	64	Tiruvannamalai H. Jagannatha Aiyar	Do.	144
9	59	Ephraim Joseph Gideon	Do.	136
10	71	Modar Venkataramya	Do.	134
11	42	C. V. Sankaranarayana Aiyar	Do.	132
12	13	Bhatlagundu R. Venkateswami Aiyar	Do.	128
13	17	V. Ramaswami Aiyar	Do.	124
14	28	P. S. Sundaram Aiyar	Do.	124
15	27	M. H. Venkateswara Aiyar	Do.	124
16	44	Kanchi Dhodachari	Do.	124
17	78	G. Samuel Pillai	Do.	124
18	30	N. Sundaram Aiyar	Do.	124
19	49	Bagade Shiva Rao	Do.	124
20	76	Cenjeevaram Ramaswami Sastri	Do.	124
21	77	K. V. Venkataramana Aiyar	Do.	124
22	65	K. Desika Aiyangar	Do.	124
23	87	N. Sesha Aiyar	Do.	124
24	26	M. Venkatarama Sastri	Do.	124
25	51	Jesudasan Soanes	Do.	124

SECOND CLASS.

5	C. R. Koppaswami Aiyar	Private study	
21	V. S. Ramaswami Aiyar	Teachers' College Saidapet...	
35	Padubidri Krishna Rao	Do.	
36	S. R. Srinivasa Aiyar	Do.	
38	K. R. Rangaswami	Do.	
50	Arcoot Narasinga Mudali	Do.	
54	Sattiamangalam Koppaswami	Do.	
57	Vembakkere Lakshmana Rao	Do.	
60	C. Minakshisundaram Aiyar	Do.	
63	T. S. Rama Subbaya	Do.	
67	C. S. Bhagavanta Rao	Do.	
72	Sripada Subbaya	Do.	
76	Vinjamar Srinivasa Chari	Do.	
75	N. Seshagiriachar	Do.	
83	S. Matharajam Aiyar	Do.	
88	Manjeshwar Tammanayya	Do.	
195	Pudukota S. Ramaswami	Chengalvaraya Nayakar Commercial and Technical School.	
200	Kumbhakonam Krishnamachari	Do.	
215	H. Siva Lal	Private study	

SYLLABUS No. 29—AGRICULTURE (PRELIMINARY).

FIRST CLASS.

97	Darshan Lal Dutt	College of Agriculture	61
121	A. P. Krishnaswami Aiyar	Do.	

SECOND CLASS.

96	Bachittar Singh	College of Agriculture	
109	Dharwar G. Ramachandra Rao	Do.	
103	Nelavangalam Chinnayya Chetti	Do.	
104	Tarekeri Narasinga Rao	Do.	

Number in Order of Merit.	Register Number.	Name of Candidate.	Where educated.	Percentage of Marks obtained.
---------------------------	------------------	--------------------	-----------------	-------------------------------

SECOND CLASS—Continued.

107	Dittakavi Lakshminarayana	College of Agriculture	
108	Kottur A. Rama Aiyar	Do.	
109	Dharwar B. Lakshmana Mudali	Do.	
112	Daniel Stracey	Do.	
113	T. S. Sambasiva Aiyar	Do.	
114	Kasargod Naraina Shenay	Do.	
116	G. Joseph	Do.	
117	Upadhyayula Venkatappayya	Do.	
119	Triplacane Rangaswami Nayudu	Do.	
122	N. P. Krishnaswami Aiyar	Do.	
123	S. Vaidhianatha Aiyar	Do.	
124	Salem B. Narayana	Do.	
126	Arcoot Nagoji Rao	Do.	
127	Chivukula Lakshminarasimhaiah	Do.	
129	Nonaviakeri T. Srinivasa Aiyangar	Do.	

SYLLABUS No. 29—AGRICULTURE (ADVANCED).

SECOND CLASS.

146	Viravalli Srinivasachari	College of Agriculture	
147	Hassan Krishnappa	Do.	
149	M. Sundaresa Sastri	Do.	
150	G. S. Rangaswami Sastri	Do.	
154	Vengarai R. Venkataramana Aiyar	Do.	
158	Yalamarti Srinivasa Rao	Do.	

SYLLABUS No. 4.—STATICS, KINETICS, HYDROSTATICS, &c.

FIRST CLASS.

184	V. Gopala Aiyar	College of Engineering	69
-----	-----------------	------------------------	----

SYLLABUS No. 1.—PURE MATHEMATICS—FIRST STAGE.

FIRST CLASS.

1	123	S. Vaidhianatha Aiyar	College of Agriculture	89
2	195	M. V. Venkatarama Aiyar	College of Engineering	60

SECOND CLASS.

108	Kottur A. Rama Aiyar	College of Agriculture	
116	G. Joseph	Do.	
121	A. P. Krishnaswami Aiyar	Do.	
122	N. P. Krishnaswami Aiyar	Do.	
184	V. Gopala Aiyar	College of Engineering	
209	Muhammad Latif Hussain	Private Study	

SYLLABUS No. 36.—HYGIENE.

SECOND CLASS.

92	S. Vaidhianatha Aiyar	Private Study	
----	-----------------------	---------------	--

SYLLABUS No. 27.—PHYSIOGRAPHY.

SECOND CLASS.

3	Krishnagiri T. Doraswami Aiyangar	Private Study	
100	Dharwar G. Ramachandra Rao	College of Agriculture	
103	Nelavangalam Chinnayya Chetti	Do.	
104	Tarekeri Narasinga Rao	Do.	
106	Tilavalli Bhima Rao	Do.	
108	Kottur A. Rama Aiyar	Do.	
112	Daniel Stracey	Do.	
113	T. S. Sambasiva Aiyar	Do.	
115	Thomas D'Souza	Do.	
116	G. Joseph	Do.	
117	Upadhyayula Venkatappayya	Do.	
121	A. P. Krishnaswami Aiyar	Do.	
122	N. P. Krishnaswami Aiyar	Do.	
123	S. Vaidhianatha Aiyar	Do.	

Number in Order of Merit.	Register Number.	Name of Candidate.	Where educated.	Percentage of Marks obtained.
---------------------------	------------------	--------------------	-----------------	-------------------------------

SYLLABUS No.—INORGANIC CHEMISTRY (PRELIMINARY)
FIRST CLASS.

1	32	R. Swaminatha Aiyar	Teachers College	83
2	123	N. P. Krishnaswami Aiyar	College of Agriculture	80
3	29	V. S. Vaidhianatha Sastri	Teacher's College	78
4	143	M. S. Panchapakesa Aiyar	College of Agriculture	77
5	56	Kallianpur Raghunatha Rau	Teacher's College	76
6	57	Vombttkere Lakshmana Rau	Do.	75
7	26	M. Venkatarama Sastri	Do.	73
8	123	S. Vaidhianatha Aiyar	College of Agriculture	69
9	108	Kottur A. Rama Aiyar	Do.	68
10	106	Tilavalli Bhima Rau	Do.	66
11	64	Tiruvannamallai K. Jagannatha Aiyar	Teacher's College	65
12	100	Dharwar G. Ramachandra Rau	College of Agriculture	63
13	105	Luckur Subba Rau	Do.	62
14	70	Sedambi Subba Rau	Teacher's College	60
15	193	Taund Kuppasawmi Chetti	Chengalvaraya Naickers commercial and Technical School	60
16	37	M. H. Venkateswara Aiyar	Teacher's College	60
17	95	A. Sunderesa Sastri	Private study	60
18	107	Dittakavi Lakshminarayana	College of Agriculture	60
19	112	Daniel Stracey	Do.	60
20	136	Saidapet Mahammad Ansaruddin	Do.	60
21	104	Tarekeri Narasinga Rau	Do.	60
22	114	Kasaragod Naraina Shenoy	Do.	60

SECOND CLASS.

1	11	Ayilatattu K. Kulu	Teachers' College	...
2	16	M. R. Sundaresa Aiyar	Do.	...
3	18	Kuchibhotla Prakasa Rau	Do.	...
4	21	Kangayam G. Venkatasubba Aiyar	Do.	...
5	27	P. G. Vanchi Aiyar	Do.	...
6	28	P. S. Sundaram Aiyar	Do.	...
7	30	N. Sundaram Aiyar	Do.	...
8	31	V. S. Ramaswami Aiyar	Do.	...
9	34	K. S. Srinivasa Sastri	Do.	...
10	39	Komandur Narasimha Chari	Do.	...
11	41	B. G. Doraswami	Do.	...
12	42	C. V. Sankaranarayana Aiyar	Do.	...
13	59	Ephraim Joseph Gideon	Do.	...
14	63	Naravi Krishna Rau	Do.	...
15	65	T. S. Rama Subbaya	Do.	...
16	67	C. S. Bhagavanta Rau	Do.	...
17	68	Kenath Gopala Menon	Do.	...
18	86	John Manuel Castilino	Do.	...
19	27	Darshan Lal Dube	College of Agriculture	...
20	99	Tanjore Guru Rau	Do.	...
21	103	Nelavangulam Chinnayya Chetti	Do.	...
22	110	K. M. Ramaswami Pillai	Do.	...
23	113	T. S. Sambasiya Aiyar	Do.	...
24	115	Thomas D'Souza	Do.	...
25	116	G. Joseph	Do.	...
26	117	Upadhiyula Venkatappayya	Do.	...
27	118	S. Ramaswami Chetti	Do.	...
28	119	Tripligane Rangaswami Nayudu	Do.	...
29	120	Adyar Janakiram Pillai	Do.	...
30	124	Salem B. Narayana	Do.	...
31	127	Chivukula Lakshminarasimhayya	Do.	...
32	129	Nanavinkeri T. Srinivasa Aiyangar	Do.	...
33	134	Rupangudi Bhinta Rau	Do.	...
34	136	Hassan Boranna	Do.	...
35	159	V. Sankara Aiyar	Do.	...
36	199	Palehur Vakulabaranam Chetti	Chengalvaraya Nayaka's Commercial and Technical School	...

Number in Order of Merit.	Register Number.	Names of Candidate.	Where educated.	Percentage of Marks obtained.
---------------------------	------------------	---------------------	-----------------	-------------------------------

SYLLABUS No. 30.—ANIMAL PHYSIOLOGY (FIRST STAGE).
FIRST CLASS.

1	163	Vellakal P. Subramania Mudali	College of Agriculture	73
2	162	M. Hassan Ali	Do.	71
3	123	S. Vaidhianatha Aiyar	Do.	70
4	124	Salem B. Narayana	Do.	66
5	100	Dharwar G. Ramachandra Rau	Do.	61
6	103	Nelavangulam Chinnayya Chetty	Do.	60
7	116	G. Joseph	Do.	60
8	112	Daniel Stracey	Do.	60

SECOND CLASS.

1	97	Darshan Lal Dube	College of Agriculture	...
2	101	T. M. Murugesen Pillay	Do.	...
3	104	Tarekeri Narasinga Rau	Do.	...
4	105	Luckur Subba Rau	Do.	...
5	106	Tilavalli Bhima Rau	Do.	...
6	107	Dittakavi Lakshminarayana	Do.	...
7	113	T. S. Sambasiya Aiyar	Do.	...
8	114	Kasaragod Naraina Shenoy	Do.	...
9	115	Thomas D'Souza	Do.	...
10	117	Upadhiyula Venkatappayya	Do.	...
11	118	S. Ramaswami Chetti	Do.	...
12	121	A. P. Krishnaswami Aiyar	Do.	...
13	122	N. P. Krishnaswami Aiyar	Do.	...
14	127	Chivukula Lakshminarasimhayya	Do.	...
15	164	B. K. Santhayya	Do.	...
16	165	K. Setu Rau	Do.	...

ANIMAL PHYSIOLOGY—SECOND STAGE.

FIRST CLASS.

1	163	Vellakal P. Subramania Mudali	College of Agriculture	78
2	165	K. Setu Rau	Do.	72
3	100	Dharwar G. Ramachandra Rau	Do.	66
4	162	M. Hassan Ali	Do.	64
5	133	S. V. Palaniandi Pillai	Do.	63

SECOND CLASS.

1	110	K. M. Ramaswami Pillai	College of Agriculture	...
2	121	A. P. Krishnaswami Aiyar	Do.	...
3	122	N. P. Krishnaswami Aiyar	Do.	...
4	123	S. Vaidhianatha Aiyar	Do.	...
5	140	K. Siddarama Gowda	Do.	...
6	141	Mothur Narasimhayya	Do.	...
7	142	Palamneri K. Vithianatha Sastri	Do.	...
8	143	M. S. Panchapakesa Aiyar	Do.	...
9	144	Kolar Narasimha Aiyangar	Do.	...
10	164	B. K. Santhayya	Do.	...

SYLLABUS No 32.—VETERINARY SURGERY AND MEDICINE—FIRST STAGE.

FIRST CLASS.

1	163	Vellakal P. Subramania Mudali	College of Agriculture	82
2	122	N. P. Krishnaswami Aiyar	Do.	75
3	162	M. Hassan Ali	Do.	63

SECOND CLASS.

1	161	Moses Abraham	College of Agriculture	...
2	164	B. K. Santhayya	Do.	...
3	165	K. Setu Rau	Do.	...

SYLLABUS No. 32—ECONOMIC ENTOMOLOGY
(PRELIMINARY)—FIRST STAGE.

SECOND CLASS.

1	122	N. P. Krishnaswami Aiyar	College of Agriculture	...
2	147	Hassan Krishnappa	Do.	...
3	148	Paraki S. Govinda Rau	Do.	...

EDUCATIONAL NOTIFICATIONS.

Fort St. George Gazette, July 14, 1891.

M.R.Ry. N. Raghunatha Chariyar, Assistant Inspector of Schools, Ninth Division, privilege leave for two months and twenty-five days from or after the 1st August 1891, under article 291 of the Civil Service Regulations.

M.R.Ry. M. Runga Chariyar, Third Lecturer in the Rajahmundry College, privilege leave for one month under articles 306 and 307 of the Civil Service Regulations.

Under section 5 of Act XXVII of 1857, His Excellency the Governor in Council is pleased to re-appoint the Honourable Sir Arthur John Hammond Collins, Knight, Q.C., Chief Justice of the High Court of Judicature, to be Vice-Chancellor of the University of Madras.

Under section 6 of Act XXVII of 1857, His Excellency the Governor in Council is pleased to appoint Mr. Reginald Ashoniu Nelson, B.A., LL.B., Barrister-at-Law, Principal of the Madras Law College, to be a Fellow of the University of Madras.

Mr. G. Oppert, F.R.S., Professor of Sanskrit, to act as Principal, Presidency College, in the First Class, during the employment of Dr. D. Duncan, M.A., on other duty, or until further orders.

Mr. S. Sathianadhan, M.A., LL.B., Assistant to the Director of Public Instruction, to act as Professor of Logic and Moral Philosophy in the Fourth Class, during the employment of Dr. D. Duncan, M.A., on other duty, or until further orders.

M.R.Ry. V. T. Seshadria Chari, B.A., Head Clerk, Office of the Director of Public Instruction, to act as Assistant to the Director of Public Instruction in the Third Grade of the Upper Subordinate Graded Educational Service, during the absence on leave of Mr. S. Sathianadhan, or until further orders.

Fort St. George Gazette July 21, 1891.

Mr. E. Marsden, Inspector of Schools, Western Circle, privilege leave for three months from or after the 1st August 1891, under article 291 of the Civil Service Regulations.

Surgeon-Major W. Price, M.D., to act as Professor of Medical Jurisprudence, Medical College, without prejudice to his own duties, during the absence of Surgeon-Major H. J. Hazlett on leave.

Surgeon F. C. Reeves to act as Professor of Pharmacy and Materia Medica, Medical College, during the absence of Surgeon F. J. Crawford, M.D., on leave.

Miss Sarah Govindurajulu, Sub-Assistant Inspectress of Girls' Schools, Second Range, to act as Junior Inspectress of Girls' Schools during the absence of Miss Carr on leave, or until further orders.

Fort St. George Gazette, July 28, 1891.

Mr. W. H. Wilson, Ph.D., Professor of Chemistry, Presidency College, Madras, has furlough to Europe for fifteen months, from 4th August 1891.

Mr. P. E. Messurier, Second Assistant, Teachers' College, acts as Inspector of Schools, Western Circle, vice Mr. Marsden on leave.

M.R.Ry. S. Akshayalinga Mudaliyar, B.A., Sub-Assistant Inspector of Schools, Madras Range, acts as Assistant Inspector of Schools, Ninth Division, vice M.R.Ry. N. Raghunatha Chariyar.

APPOINTMENT BY THE ACTING DIRECTOR OF PUBLIC INSTRUCTION.

The Acting Director is pleased to appoint Miss Alice Harris, Headmistress, Government Girls' School, Vellore, to act as Sub-Assistant Inspectress of Girls' Schools, Second Range, in the First Class, during the employment of Miss Govindarajulu on other duty or until further orders.—P.O. No. 8506 of 23rd July 1891.

COLLEGE OF ENGINEERING.

The undermentioned gentlemen have been appointed by Government as members of the College of Engineering Board of Examiners under Article II of the Code of Rules for the College:—

President.

Captain A. D. G. Shelley, R.E., Deputy Consulting Engineer for Railways.

Members.

Mr. E. W. Stoney, C.E., Madras Railway Company.

Mr. R. L. Jones, Professor of Physics, Presidency College.

Office of the Director of Public Instruction,
Madras 1st July 1891.

D. DUNCAN,

Ag. Director of Public Instruction.

Number in Order of Merit.	Register Number.	Name of Candidate.	Where educated.	Marks obtained.
---------------------------	------------------	--------------------	-----------------	-----------------

SECOND CLASS—Continued.

149	M. Sundaresa Sastri	Do.	
151	Lakshminarayanaapuram A. Krishna Aiyar	Do.	
152	P. N. Sadasiva Rau	Do.	
153	Thittacherri S. Venkatarama Aiyar	Do.	
154	Vengarai R. Venkataramana Aiyar	Do.	
157	C. V. Nilakanta Aiyar	Do.	
158	Yalamarti Srinivasa Rau	Do.	

SYLLABUS No. 34—FORESY (PRELIMINARY).

SECOND CLASS.

9	K. Kuppuswami Chetti	Private study	
207	Thesur Arumuga Mudali	Do.	
210	T. Venkatachala Mudali	Do.	

SYLLABUS NO. 2.—PRACTICAL PLANE AND SOLID GEOMETRY.

PRELIMINARY.

Maximum 100.

FIRST CLASS.

192	Polesetti Ranganayakulu	College of Engineering	60
-----	-------------------------	------------------------	----

SECOND CLASS.

167	Saripalli Venkatachalam	College of Engineering	
169	James William Hay Ellis	Do.	
183	G. S. Rama Aiyar	Do.	

ADVANCED.

SECOND CLASS.

173	William Charles Hamilton Littlewood	College of Engineering	
-----	-------------------------------------	------------------------	--

SYLLABUS No. 3.—MENSURATION.

Maximum 150.

FIRST CLASS.

58	C. V. Ramachandra Aiyar	Teacher's College, Saidapet	76
66	P. R. Agraswami Aiyar	Do.	75
12	Chittagur Ramaswami	Do.	73
10	C. E. Venkataramana Aiyar	Do.	72
56	Kallianpur Raghunatha Rau	Do.	68
179	Conjeevaram Thangavelu Mudali	College of Engineering	
180	R. Krishna Aiyar	Do.	66
20	S. Sankaraya	Teacher's College, Saidapet	65
27	P. G. Vanehi Aiyar	Do.	
82	R. Srinivasa Aiyar	Do.	
122	N. P. Krishnaswami Aiyar	College of Agriculture	62
123	S. Vaidyanatha Aiyar	Do.	
24	Nagarajanda Rao	Teacher's College Saidapet	62

SECOND CLASS.

15	Arkal Vasudeva Rau	Teachers' College Saidapet	
19	G. S. Raghunatha Chari	Do.	
25	O. Gopala Pillai	Do.	
47	Tenkasi R. Gopalakrishna Aiyar	Do.	
63	Narari Krishna Rau	Do.	
203	Kelora Sundaram Aiyar	Private study	

LOWER EXAMINATIONS.

PLAN DRAWING AND ESTIMATING.

SECOND CLASS.

2	S. Purnaya	Private study	
---	------------	---------------	--

BUILDING MATERIALS AND CONSTRUCTION.

SECOND CLASS.

173	Wm. Charles Hamilton Littlewood	College of Engineering	
-----	---------------------------------	------------------------	--

(By order)

Office of the Commr. for the U.C.S. Examinations,
Madras, 26th July 1891.F. H. ELLIOT,
Secretary.

TAMIL TEXT FOR THE LOWER SECONDARY CLASS.

The Director of Public Instruction hereby notifies that the following selections in Prose and Poetry (Tamil) have been prescribed for use in the Seventh Standard or Third Form until further orders:—

Prose.—Government Tamil Fourth Reader, Part II, Lessons 81 to 112 (both inclusive).

Poetry.—Tamil Poetical Anthology, No. II, Stanzas 139 to 220 (both inclusive).
Office of the Director of Public Instruction, H. B. GRIGG,
Madras, 22nd June 1891. Director of Public Instruction.

CIRCULAR MEMORANDUM.

In supersession of the existing orders, Inspectresses of Girls' Schools are requested to be good enough to review all the Tabular Inspection Reports both on Government and non-Government schools, received from the Sub-Assistants of Girls' Schools, and to submit their reviews to the Director along with the Sub-Assistants' reports in the case of Government schools and without these reports in the case of all other schools.—No. 8530 of 24th July 1891.

TEXT BOOKS FOR THE LOWER SECONDARY EXAMINATION.

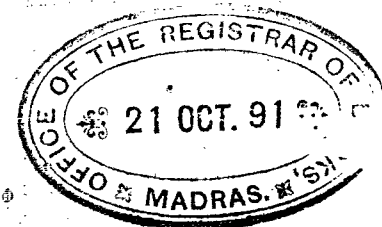
Read—the following letter from the Acting Inspectress of Girls' Schools, Northern and Central Circles, to the Director of Public Instruction, dated Madras, 1st June 1891, No. 2075:—

I have the honour to bring to your notice that managers of schools desirous of securing pupils and teachers for the Lower Secondary Examination have been frequently applying to this office for the names of text-books prescribed for the Language portion of the examination, and request that early orders may be passed on the subject.

Except in so far as text-books are prescribed for Standard VII in the Educational Rules, Managers are free to select their own text-books. It is not likely that the Committee to draw up the list of approved text-books will be appointed until after the Government have passed orders on the revised draft of Chapter III. Meanwhile, Managers will do well to use the text-books that they have hitherto used in preparing the Upper Fourth class for the late Middle School examination.—Pro. O/3. of 3rd June 1891.

List of Subscriptions received on account of the Madras "Journal of Education," from 1st to 31st July 1891.

Those who do not pay in advance will have to pay Rs. 5-8, the arrear rate.		Rs.	A.	P.
Head Master, Board Middle School, Angatipuram, Walavanad, for 1891	...	4	8	0
F. J. M. Monliere, Manager, St. Joseph's School, Tellicherry, do.	...	4	8	0
R. Murthi Rao, Shirmadevi do.	...	4	8	0
Hon. Secy. N. M. Petit Charity Fund, Bombay do.	...	4	8	0
Manager, St. Francis Xavier's School, Tuticorin do.	...	4	8	0
L. G. Saldanha, Mangalore do.	...	4	8	0
Rev. A. C. Taylor, Madras do.	...	4	8	0
T. Parameshvar, Mangalore do.	...	4	8	0
K. A. Krishna Iyengar, Trivandrum do.	...	9	0	0
President, Taluk Board, Kumbakonam do.	...	4	8	0
F. J. Beck, Vepery do.	...	4	8	0
President, District Board, Mangalore do.	...	4	8	0
President, District Board, Cuddapah do.	...	4	8	0
Secy., Literary Society, Teppakulam, Trichy. ... for July to June 1892	...	2	8	0
P. A. Krishnamachari, B. M. School, Salem ... for July to Dec. 1891	...	4	8	0
G. N. A. Clarke, Noble College, Masulipatam ... for 1891	...	4	8	0
K. Venkata Row, Trivandrum do.	...	2	8	0
H. V. Ramakrishna Iyer, Supt., Varagari School, Trichy ... for July to Dec. 1891	...	4	8	0
Manager, Argam Middle School, Teruvadamathur ... for 1891	...	4	8	0
C. S. Subba Row, Coimbatore do.	...	2	8	0
N. Soondararaja Iyer, Head Master, L. E. School, Arcot ... for 1890	...	4	8	0
K. Chithambara Iyer, Travancore ... for 1891	...	2	0	0
Mrs. M. Boon, Egmore do.	...	2	8	0
S. Mansurshah Maraikayar do.	...	2	8	0
R. Martin, Cocanada do.	...	4	8	0
Rev. Lazarus, Perambore do.	...	0	8	0
Manager, Ladies' Association, Vepery do.	...	4	8	0
Manager, Civil Orphan Asylum, Egmore do.	...	4	8	0



THE JOURNAL OF EDUCATION

MADRAS.

Vol. V.] SEPTEMBER 1891. [No. 9.

EDITORIAL NOTICE.

The Editor wishes to discharge his pleasant duty of thanking those who have come forward with contributions for the *Journal of Education* during the last month. Many friends from unexpected quarters have proffered their sympathy and assistance, and in so doing have considerably lightened the burden of the editorial responsibility. One generous well-wisher of the Journal has expressed his intention of offering a money prize from time to time for the best original answers, from *bona fide* students, on subjects to be hereafter named by him. In our next issue we hope to be able to announce the first subject.

PUBLIC LIBRARIES.

If a country's intellectual activity and superiority may be measured by the number and efficiency of its public libraries, how low an estimate alas! must we take of India's intellectual capacity! Whether, however, such a test may or may not be universally applied under all circumstances, this at least must be admitted—that from the earliest times those countries, which were confessedly the leaders of thought, possessed, one and all, a correspondingly superior collection of books in the form of libraries. The celebrated library of Alexandria, with its almost fabulous collection

of 700,000 books, was the embodiment of Egypt's intellectual superiority over the rest of the civilised world. The records of Assyria's and Babylonia's phenomenal civilisation are still preserved for us in the less perishable forms of stone and clay. Pisistratus and Pericles at Athens, Julius Cæsar and Augustus at Rome, have added an undying lustre to their names by collecting and preserving in the concrete form of books and manuscripts all that was the noblest and most beautiful in the people over whose destinies they were called to preside. Thousand of years have elapsed, and still the books which they collected serve as the highest intellectual food to a world, which in other respects, materially and morally, has made gigantic strides—while the discovery of Aristotle's Treatise on the Constitution of Athens is the event of the nineteenth century which has most profoundly interested the educated classes. Charlemagne as the founder of public libraries in France, Sixtus V. as the founder of the priceless Vatican Library, made themselves public benefactors for all times. Amidst the prevailing gloom of the middle ages, the monasteries with their Scriptoria preserved and replenished the light which has thus shone continuously from ancient times to the present. Secure from the strife of the world their inmates sacrificed all which men value most that they might preserve and embellish the priceless works of antiquity. Throughout these same dark ages Italy, the nursery of literature and art, was famous for her public and private libraries. But her internal dissensions left her a prey to ultramontane foes, and by denying her all hopes of autonomy, deprived her of those very benefits which she first taught others to appreciate. With the stimulus which Printing, the Renaissance, and the Reformation gave to learning, the nations began to embody in libraries all that was best worth preserving in the literary efforts of their own and other countries; and now at the present day, Paris, Berlin, St. Petersburg, Vienna, Munich, Prague and Bologna can boast of their public libraries, each with an average of 400,000 books. In England, the British Museum library, the Bodleian library at Oxford, and others too numerous to mention, are the noblest monuments of that country's greatness. Nor have the younger nations, such as America and Australia, lagged behind in the praiseworthy competition. America especially is multiplying library on library for the use of the people, and is endeavouring

215.

to substantiate her claim to a national literature of her own. There is much to afford food for grave reflection in her political, social, and material life; but the most hopeful sign is the fact that she voluntarily sacrifices much to secure in the future a highly educated and cultured people. All honour to those nations whose instinct and wisdom lead them to adopt the politic course of creating national libraries as monuments of their own national literature and of the world's best writers!

How strange that England which has done so much for India, should really have done so little by omitting to give the country the obvious benefits arising from the establishment of public libraries! If ever a country needed specially the advantages derived from public libraries, that country is India. Yet we believe we are correct when we state as an almost incredible fact that India does not possess at present a single public library. There is not a single library which serves as the repository of the indigenous literature of the country. There is not a single library which worthily represents that glorious western literature which England has been sedulously superinducing for the last half-century. In Madras there is only one library—the private library of the Literary Society—which at all approaches even the average provincial library of England. But it is a matter for congratulation that a *bonâ fide* public library will be established in a year or two in the new premises of the Madras Museum. The nucleus of such a library already exists in the present Museum Library, in the records that lie buried in Fort St. George; and in the stock books of the Literary Society, which may probably be placed under the charge of the Government when the Society shifts its quarters to the buildings of what promises to become the South Kensington of Madras. Supplemented by a substantial grant from Government such a library may make some modest pretensions to the name of a national library. But this is not enough. Every district of Madras, every important provincial town should possess its local free library, established and supported at the municipal charge; for a national institution should be a national charge. Consider what the almost universal adoption of the Free Libraries' Act has accomplished in England, what the foundation of public libraries has done for America and Australia. Manchester comes first with its public library of 150,000 books, then Birmingham with 100,000 and other

provincial towns with their goodly array. There is scarcely a district or a town of any importance but what has its public library. In England it is estimated that there are over 160 libraries each with a collection of over 10,000 books, many possessing an average of 50,000. Below these come nearly 200 libraries each with a collection of something under 10,000 books. To see these great libraries habitually frequented by eager students, to see them by night when they are besieged by the sons of toil until not a seat remains, is to see a sight which bears silent, but eloquent witness to the ever increasing intellectual activity, the sobriety, and the thoroughness of the English masses. In America there are over 5,000 libraries with twenty million volumes—volumes, be it remembered which have been collected in the last century and a half. The Americans, —to their credit be it said—in spite of the high state of pressure under which they live, devote what spare time they have to more serious reading than that which is in request in English Public Libraries. To this fact in part, as well as to the peculiarly favourable conditions of the workshop, must be attributed the intelligence and the inventiveness which characterise the average American workman.

Among the many advantages which would accrue from the establishment of a Teaching University in this Presidency would be the creation of a library worthy of its *alma mater*. Carlyle says that the true University is a collection of books, free and open to all. If this is so, and we are not concerned here to dispute Carlyle's dictum, then the older Universities of England can claim to be considered ideal Universities. Of Oxford, Hallam said that its library was the one great cause of its literary distinction. Many a modern book that we could name has received its form and inspiration beneath the shadow of the Bodleian Library. For there lie treasured up priceless manuscripts, and musty records which supply the student with abundant material for original research, and which supply fugitive and long-forgotten facts on which important theories and important histories may be built up. There is not a student with howsoever little title to the name, who has not felt the refining influence of the place. There is not a student, however ardent and studious he may have been, who has not been stimulated and chastened by the subtle influence of its never-ending shelves of books. "Above all thy rarities, old Oxford, what do

most arid and solace me, are thy repositories of mouldering learning, thy shelves—what a place to be in is an old library! It seems as though all the souls of all the writers, that have bequeathed their labours to these Bodleians, were reposing here, as in some dormitory, or middle state. I seem to inhale learning, walking amid their foliage; and the odour of their old moth-scented coverings is fragrant as the first bloom of those scintial apples which grew amid the happy orchard." And dead must be the soul which cannot respond to this outburst of Charles Lamb! What is true of the Bodleian is true of other Oxford libraries, of the Radcliffe, Queen's, All Souls' and others, any one of which would alone suffice to establish the reputation of the institution to which it is attached. No wonder then that we consider that the University of Madras in not possessing a library corresponding to its dignity and influence is shorn of its greatest and brightest ornament!

There are many unfavourable features in native education which may possibly discourage those who would gladly forward the public library movement in India if it did not appear such a hopeless and thankless task. There is the mercenary value attaching to Education, the absence generally of any love for learning as a thing to be desired in itself, the little use made of the College and School libraries which do exist, the absence even of a few books to be considered as an inseparable part of the individual's personal belongings, and lastly, the frequent presence of a debased taste where a taste for reading exists at all. It would be premature to discuss the details for the proper government of libraries yet unborn; but it is in those details that the remedy for some at least of the characteristic failings just summarised may be found. The fundamental idea in establishing Public Libraries is that these latter might supplement an imperfect school education. This educative idea must never be lost sight of; and judged by this standard all fiction of that too prevalent type which panders to the passions should be rigorously excluded. It is a mistaken idea which believes that a mind nurtured with coarse food will gradually emancipate itself and crave at last for nothing but what is pure and elevating. Fiction we must have, but it must be good. In an Adam Bede, a Pendennis, a Westward Ho! an Ivanhoe, a Vilette, or a Lorna Doone will be found material just as entertaining and twice as ennobling as anything which fell from the pen of a Reynolds or a Braddon. Light literature which appeals

20

There are two parts to all they never said.
The words of the heart, and the words of the tongue.
The words of the heart are the words that are
the words of the heart, and the words of the tongue.
The words of the heart are the words that are
the words of the heart, and the words of the tongue.
The words of the heart are the words that are
the words of the heart, and the words of the tongue.

But to further insist on the importance of books and libraries are not all that is necessary to make an educated and cultured man. Without thought and interest a man may be "deep-versed in letters" and without knowledge a man may be "deep and apprehensive." There are no such in-between the thought life, and we give the very necessary appreciation of the discipline of qualities and character and the knowledge of these makes a public library living and the backbone of the ideal life of man. In fact we see in these that we have the seed for such a realization, having no public libraries.

425

217

425

1. EDUCATION IN MADRAS
Prior to the organization of the Educational Department, which was the direct out-come of the Despatch of Sir Thomas Munro's Minute. 1854, the efforts made by Government to improve education were spasmodic and wanting in thoroughness. Sir Thomas Munro was the first to draw the attention of the local Government to the subject of education. In a Minute recorded by him on the 25th June 1822 he says:—"Much has been written, both in England and in this country, about the ignorance of the people of India, and the means of disseminating knowledge among them, but the opinions upon this subject are the mere conjectures of individuals, unsupported by any authentic documents, and differing so widely from each other, as to be entitled to very little attention. Our power in this country, and the nature of its own municipal institutions, have certainly rendered it practicable to collect materials from which a judgment might be formed of the state of the mental cultivation of the people. We have made geographical and agricultural surveys of our provinces; we have investigated their resources; and endeavoured to ascertain their population; but little or nothing has been done to learn the state of education." Sir Thomas Munro suggested in the Minute that the best information should be obtained of the actual state of education throughout the country, and called upon the several Collectors to furnish facts and figures relating to schools in their respective Districts, the nature of education given in them, the number of scholars in each and other matters of interest. It is most noteworthy that in all the efforts made by Government from the earliest period to promote education, the most scrupulous regard was paid to the opinions and prejudices of the people on the subject. The principle of non-interference was strictly observed and every possible attempt was made to secure the confidence and co-operation of the people in the practicable measures adopted by Government. Sir Thomas Munro concludes his Minute by saying:—"It is not my intention to recommend any interference whatever in the native

schools. Everything of this kind ought to be carefully avoided, and the people should be left to manage their schools in their own way. All that we ought to do is to facilitate the operations of these schools by restoring any funds that may have been diverted from them, and perhaps granting additional ones where it may appear advisable." The Court of Directors fully approved of the inquiry set on foot by Sir Thomas Munro, and referring to the non-interference policy observed that "it was proper to caution the Collectors against exerting any fear in the people that their freedom of choice in matters of education would be interfered with," but that "it would be equally wrong to fortify them in the absurd opinion that their own rude institutions of education were so perfect as not to admit of improvement."

The reports and returns of the Collectors, which it took two years to collect, shewed an aggregate of 12,498 schools containing 188,650 scholars, of whom 184,110 were males and 4,540 females. Out of the 12,498 institutions, 740 were returned as Colleges, these were merely vedic *patasalas* which formerly formed a part of every *mantam* or religious centre. Tanjore returned the largest number of institutions—993, of which 109 were entered as Colleges. Very few schools appear to have been endowed by the public, the majority of them being supported by the parents of the pupils. Brahmins were chiefly in charge of the vedic *patasalas* and they generally held *Manniums*, &c., granted by the ancient Zemindars and by the former Governments for various reasons. The rate of payment for each scholar varied in different Districts and according to the different circumstances of the parents of the pupils from one anna to four rupees per mensem, the ordinary rate among the poorer classes being generally about four annas and seldom exceeding half a rupee. The particulars relating to caste to which the pupils belonged are interesting. Of the 188,650 pupils, 13,561 were returned as Muhammadanis, 42,502 as Brahmins, 19,669 as Vyasees, 85,400 as Sudras, and 29,518 as belonging to other castes. Comparing the above with the latest figures available it is clear that the Brahmin community enjoyed the privileges of education to even a greater extent than they do at the present moment. Roughly speaking to every six caste and non-caste Hindu pupils under instruction at present in schools and colleges one is a Brahmin, although

the Brahmin population is only one-twentieth of the native Hindu population; but at the time we are referring to one in every four Hindu pupils under instruction was a Brahmin.

We have unfortunately very little information as regards the quality of instruction imparted in indigenous schools. Only one or two Collectors refer to the subject in their reports. The Collector of Bellary wrote in his report that the books in use in the Telegu and Canarese schools in the District were in verse and in a dialect quite distinct from that of conversation and of business. "The alphabets," he says, "of the two dialects are the same, and he who reads one, can read, but not understand the other also. The natives therefore read these (to them unintelligible) books to acquire the power of reading letters in the common dialects of business, but the poetical is quite different from the prose dialect which they speak and write, and though they read these books, it is to the pronunciation of syllables, not the meaning or construction of the words, that they attend. Indeed few teachers can explain, and still fewer scholars understand the purport of the numerous books they thus learn to repeat from memory. Every schoolboy can repeat verbatim a vast number of verses of the meaning of which he knows no more than the parrot which has been taught to utter certain words. Accordingly from studies in which he has spent many a day of laborious, but fruitless toil, the native scholar gains no improvement, except the exercise of memory and the power to read and write on the common business of life. He makes no addition to his stock of useful knowledge and acquires no moral impressions. He has spent his youth in reading syllables, not words, and on entering into life he meets with hundreds and thousands of words, of the meaning of which he cannot form even the most distant conjecture; and as to the declension of a noun or the conjugation of a verb he knows no more than of the most abstruse problem in Euclid." "The above picture may be taken as typical of the instruction imparted in all indigenous schools. The teaching was hardly of any practical value, except that the pupils acquired the first rudiments of arithmetic, and were able to keep accounts in the most mechanical way possible. The instruction in other subjects, it is needless to add, was of the most rudimentary nature, and when it dealt with higher subjects aimed at

little more than the cultivation of the memory. Of the instruction in the so-called Colleges it is said:—"For twenty years the students commit to memory mantra after mantra, sloka upon sloka, comment after comment, until they are able to superintend every ceremony and perform every rite of the Yajur or Black Veda." The teachers were generally indigent Brahmins, who were selected on account of their influence in the town or village in which the school was situated without reference to qualifications.*

Sir Thomas Munro was convinced of the unsatisfactory nature of the condition of education, and suggested certain active measures to improve the state of things. He proposed in his Minute, dated March 10th, 1826, the establishment of a school at the Presidency for the purpose of training and educating teachers to be employed in Government schools, and suggested that two principal schools should be founded in each Collectorate, one for Hindus, and the other for Muhammadans, and an inferior school eventually in each Tahsildaree. Each Collectorate was estimated to have had about fifteen Tahsildarees. Sir T. Munro applied to the Court of Directors for an annual grant of Rs. 50,000 for these schools and pointed out that the expenses incurred by Government "would be amply repaid by the improvement of the country; for the general diffusion of knowledge is inseparably followed by more orderly habits, by increasing industry, by a care for the comforts of life, by exertion to acquire them and by a growing prosperity of the people." He attributed the

* Mr. A. D. Campbell, the Collector of Bellary, in his report also gives some interesting facts relating to the internal working of the indigenous schools in his district. He says:—"The education of the Hindu youths generally commences when they are five years old; on reaching this age, the masters and scholars of the school to which the boy is sent, are invited to the house of his parents; the whole are seated in a circle round an image of Gunasee, and the child to be initiated is placed exactly opposite to it. The schoolmaster sitting by his side, after having burnt incense and presented offerings, causes the child to repeat a prayer to Gunasee, entreating wisdom. He then guides the child to write with its finger in rice the mystic names of the deity and is dismissed with a present from the parents according to their ability. The child next morning commences the great work of his education. . . . The internal routine of duty for each day will be found, with very few exceptions and little variation, the same in all the schools. The hour generally for opening school is six o'clock, the first child that enters has the name of Saraswatee, or the goddess of learning, written upon the palm of his hand as a sign of honour; and on the hand of the second a cypher is written, to show that he is worthy neither of praise nor censure; the third scholar receives a gentle stripe; the fourth two; and every succeeding scholar that comes an additional one. This custom, as well as the punishment in native schools, seems of a severe kind. The idle scholar is flogged and often suspended by both hands and a pulley to the roof, or obliged to kneel down and rise incessantly, which is a most painful and fatiguing, but perhaps a healthy mode of punishment."

backward state of education to the absence of any sufficient encouragement given to educated men, and to the poverty of the people. It is noteworthy that the general impoverishment of the country came frequently to the notice of the authorities in those days. One of the Collectors in his report ascribes the poverty to the following causes:—"The masses of the manufacturing classes have been of late years greatly diminished by the introduction of our own European manufactures in lieu of the Indian cotton fabrics. The removal of many of our troops from our own territories to the distant frontiers of our newly subsidized allies has also, of late years, affected the demand for grain; the transfer of the capital of the country from the native Government and their officers, who liberally expend it in India to Europeans, restricted by law from employing it even temporarily in India, and daily draining it from the land, has likewise tended to this effect. The general part of the middling and lower classes are now unable to defray the expenses incident upon the education of their offspring, while their necessities require the assistance of their children as soon as their tender limbs are capable of the smallest labour."

(To be continued.)

COMMERCIAL EDUCATION.

It need scarcely be pointed out to those who have given the matter any thought, how the development of commerce in this country has resulted in a greatly increased demand for labour of such a kind as to offer to the fairly educated youth an opportunity of earning a comfortable income at a comparatively early period of his life.—The object of this paper is to put forward some recommendations for the better understanding of subjects which are specially related to commercial transactions, and the writer, who has for some years been occupied in business in this Presidency, believes that a few practical suggestions may be of real use to both teachers and students.

At the outset, it must be remarked how very rarely there is to be met with a young native whose *Handwriting* is even respectable, the result is, that Eurasians are often received into vacancies simply on account of their caligraphy. As is well known, a young man of intelligence and fair education only desires at first a tentative engagement, in order to demonstrate his capabilities; and however

much a situation may be looked down upon where only a "writer" is required, I can assure the interested youthful reader that by commencing in this manner, he will have the best possible chance of learning in a short time, nearly all that it is necessary for him to know in a house of business, by means of the various letters and other documents which will continuously pass through his hands.—If after some time, more onerous duties have not been deputed to him, he will generally have his own incapacity to blame.—I would therefore strongly recommend both teachers and pupils to give this matter of handwriting their attention.—When applications are received from candidates for vacant posts, they are as a rule all written in much the same phraseology, the result being that the principal will generally select the best writers, passing over those whose writing is poor and inelegant, notwithstanding that the latter may really be better qualified men in other respects.

The next important subject I should recommend attention being given to, is *Book-keeping*. It is supposed by some, that owing to business houses trading in various ways and in different classes of merchandise it is impossible to impart to pupils a knowledge of Book-keeping that can be of any real practical service.—This view however I consider is a mistake.—The principle of Book-keeping and accounting is the same in all businesses, and if this principle is grasped, the pupil, when he commences his commercial career, should very soon be able to understand the differences of detail, which do not in any way affect the system of accounting. A complete comprehension of Book-keeping is desirable not only as an end in itself but as a means;—a means of acquiring a knowledge of the nature of transactions in all their various bearings, and of enabling the pupil to adopt and practice business methods in all work with which he is entrusted.—It is in my opinion absolutely necessary for the proper understanding of the various books kept in a house of business, that the pupils should provide themselves with imitation foolscap books,—one of each kind; a Ledger, Journal, etc. This plan I believe is adopted in many schools. Bills of Exchange printed, should also be supplied. The use of these is always very difficult for a pupil to understand, but with the documents in his hands he will be much more likely to grasp the rather complicated system of payments for which they are used.—These forms could be obtained got up cheaply from any printer for a few annas per hundred.

As regards *Arithmetic and Calculations*.—A thorough knowledge of vulgar and decimal fractions as well as of the "Rule of Three" is most desirable.—Moreover the old round-about way of calculating is never adopted out of school, and I shall be corroborated by all who have been, or are in, business, when I say that when a youth first enters an office where he has any calculations to make, he very soon abandons the slow method of working which he has learnt at school.—For example, the principle of aliquot parts is that most desirable and can be applied to almost all transactions. In calculating discounts for instance, it should be demonstrated to the pupils that 10 per cent. on a given sum is equivalent to one-tenth of that sum; 5 %, to one twentieth.—If $7\frac{1}{2}$ % is required to be obtained from a given amount, the pupil should be shown that one of the easiest ways to arrive at this is by taking first 10 %, then half the product would be equal to a discount of 5 %, and a half of this again added to the former product would give the required $7\frac{1}{2}$ %.—or a shorter method even than this would be as follows:

Required $7\frac{1}{2}$ % on Rs. 275	5	0
10 % = $\frac{1}{10}$ th =	27	8 6
$2\frac{1}{2}$ % = $\frac{1}{4}$ th =	6	14 11
Thus $7\frac{1}{2}$ % =	34	20 10 4 $\frac{1}{2}$

Mental arithmetic is also extremely useful and the pupil should learn to calculate all ordinary multiplications and divisions not in large numbers, also percentages such as $1\frac{1}{2}$ % on 6 annas; 3 % on Rs. 75; $2\frac{1}{2}$ % on Rs. 1.8 or 40 ls. 7d.

There is one more subject the value of a knowledge of which I cannot lay too much stress upon, and that is *Correspondence*.—If what I have learnt is correct of the way in which this important branch is taught—or rather left untaught,—it is evident that the importance of it is not appreciated by either teachers or pupils.—In my experience of native clerks or assistants, I have scarcely come across any who could compose a really good letter on any matter of business, and only a few are after a long period able to write even a simple note of advice. There are many clerks who even after being in a counting house for years never grasp the requirements of a business communication, notwithstanding that numerous letters of all kinds pass regularly through their hands.—Now the reason of this shortcoming, I am inclined to think, is chiefly the absence of

a sufficient knowledge of English composition on the part of the young men, and also a lamentable deficiency in their knowledge of grammar. The remedy for this is plain enough, but whether the necessary steps will be taken to ensure pupils receiving more thorough training in the required direction is somewhat doubtful,—though the general advantages to be derived from such more perfect tuition must be apparent to every one, and can scarcely be too strongly stated. However where the knowledge in question is difficult of attainment, I would suggest the adoption of the following plan which cannot but be useful under any circumstances. After the pupils have been initiated in the elementary stage of letter writing such as the beginning and endings, &c. of letters; the teacher should explain to the pupils, so far as he is able, the various purposes of correspondence; he could explain the carrying out of a transaction, and mention how the execution of a contract was or was not correct; how renewed orders would be sent, and so on. These letters could be written out on the board and the pupils should be allowed to copy them. Later, the teacher would give a few facts relative to a supposed business transaction, and then request the pupils themselves to write a letter respecting the execution of the order, the receipt of the goods, their condition, etc. This plan I am convinced would be most serviceable, and would enable the teacher at once to discover the weak points of the pupils and thus correct their shortcomings in the most efficient manner.

I have now sketched out what appear to me to be the main lines of a commercial training, so far as it can possibly be followed out at school. Even to those who have no intention of entering upon a commercial career, a grounding in business methods such as I have indicated cannot fail to be of service in other spheres where their lot may be cast. Those who look forward to taking up the management or direction of affairs connected with landed property or estates, will be amply repaid for the study they may give to acquiring some training in business matters, and the subjects I have briefly indicated are such that a knowledge of them is really most desirable if one has either to earn his living by commerce, or to make the best use of, and to protect, property or funds which he may be fortunate enough to possess.

“SCRIPTOR.”

THE KINDERGARTEN SYSTEM.

The founder of this system was Froebel, the son of a German pastor. He was born in 1782 and died in 1852. He was not absolutely the originator of the system. The principles of infant training and the need of a systematic course of securing an early and gradual awakening of the powers of little children had been insisted on by Pestalozzi, Rousseau, Combe, Edgeworth, &c. It was Froebel who first reduced all the principles to a system; and gave it the name Kindergarten. The term means child's garden; for the nursery school is compared to a garden in which children under the management of a wise teacher should grow up as plants do under the management of a wise gardener.

The system is applicable to children between the ages of three and seven. The idea that almost universally prevails in this country is that it is only on attaining a certain age that the child is fit for instruction. An institution like the Kindergarten is altogether new to this country, although children are in the habit of giving themselves up to some stray occupations, as in the Kindergarten system, but without that educative value as when performed under proper guidance. The school is always associated with the idea of some hard and rigid work, and it is to prepare the child for it, to diminish to a great extent the labours of the pupil and that of the teacher, and to separate the idea of a school from everything hard or unpleasant that the system serves its best ends. In this system there is a methodical and systematic plan according to which the child is surrounded and guided in such a manner that the inborn faculties of the children attain gradual development. Here play and study of things are carefully combined. It is in fact a scheme “of organised play” devised and worked out with definite aims.

The methods of Froebel are founded upon a careful study of the habits and nature of little children. The most superficial observer sees that when children are left to themselves they exhibit certain instincts and characteristics which are common to them all; such as activity, change of occupation, love of construction, desire for imitation, &c. Suitable provision is made for the satisfaction of these instincts. The earliest manifestations of the powers of the child are found in the notice that it takes of the things about it and in the desire for activity which shows itself first in the movement

of the limbs and afterwards in play. Therefore Froebel uses play as the means of directing into the right channel the activity of the child, and various games and exercises are devised with this end in view. The instinct of curiosity is likewise very strong in children. This is seen in the various efforts the child makes to approach and examine any new object that it comes across. The instinct also manifests itself in the numberless questions that it puts. This love of curiosity should be carefully fostered, and everything that is placed before the child should be subjected to the full observation and handling of the child. Side by side with curiosity grows up the power of observation, a power which is of great importance in education. The attention of the children is roused by bright colours, and this is taken advantage of to secure the development of the senses which acquire accuracy and delicacy through a series of games and various kinds of work in which the child exercises its ingenuity and secures steadiness of hand.

Bearing in mind the various characteristics of children, Froebel devised a scheme of occupations, and the materials for these occupations or games are called "Gifts." Froebel's gifts were only eight in number, but his disciples have increased the number to twenty.

The various occupations are developed one from another in a perfectly natural order. The first materials presented are wholes, then the child goes to parts and then to smaller parts. Hence solids form the first group of occupations. The next group consists of occupations concerned with surfaces, and from these the child goes to lines and then to points. The occupations will fall into groups thus:—

- (a) Solids.—Balls, cubes, cylinder, with parts.
- (b) Surfaces.—Wooden and paper plates.
- (c) Lines.—Sticks, lines on slate and paper, rings, threads.
- (d) Points.—Pricking, peas work.
- (e) Bodily exercise.—Drill, jumping, ball-throwing, &c.

From the above it does not necessarily follow that the children should be taken through the course in a consecutive manner. The teacher of a Kindergarten class in drawing up a scheme of occupations for his children must bear in mind the age of the children as also what each occupation is intended to teach. He should also remember that some occupations serve more purposes than one, and that some elements are more prominent than others.

For a complete scheme of the Kindergarten gifts and the method of conducting the various games the teacher will do well to refer to Wiebe's "Paradise of Childhood," or the Kindergarten guide in 5 parts by Kraus. A superficial glance may in the beginning lead one to fancy that some of the gifts are unnecessary or too much below the powers of an Indian Infant class. It may be that, as regards some properties of the materials of the occupations the children possess previous knowledge, but it is quite another thing to use that knowledge to promote the aims of the system. Such knowledge consists merely of scraps and is generally incoherent. If the games be gone through with the boys the progress must be more rapid and the exultation of the children very great. At any rate if a proper selection be made the system will be productive of immense good and will save the labour of the teachers when the children go through a course of regular school-instruction.

The features of the system may be summed up in a few words.

1. The system takes Nature as a guide and things are learnt exactly in the manner in which children would learn if left to themselves.
2. The lessons are learnt without being considered as lessons, for the system recognizes play as the business of child's life and makes toys and other materials of children's occupations the chief apparatus.
3. Attention and other powers of the children are absorbed in the several gifts without fatiguing them, the natural impulses and the activity of the children being given full scope. The lessons are a pleasure to the children.
4. Children acquire habits of prompt obedience, order, manual facility and skill. These and many others are the inevitable results of the teacher's tact, and it is this tact which makes the children see that every little bit of the work has a distinct aim and meaning.
5. Children acquire the elements of writing, counting, &c., and are ready prepared for the School-instruction to follow. Interesting construction and drawing lessons could be given to the children on the forms of the letters without making them go through the too common and tiresome drudgery method of making children learn the alphabet.

UPPER SECONDARY CLASSES.

(Continued from our last.)

Adverting to the difficulties pointed out by a correspondent in our correspondence columns in connection with the practicability of making the same set of classes prepare pupils for both the Matriculation and Upper Secondary examinations, we make the following explanatory remarks:

It is only in a small school, where there are not enough students for the Upper Secondary examination to justify the opening of separate classes for that course, that the suggestions made in our last issue for working the two classes together should be adopted. Obviously, the best course to be adopted where there is a sufficient number of students for the two examinations is to open separate classes and maintain a Matriculation and an Upper Secondary department. Some inconvenience cannot but be felt, when a small school tries to do both kinds of work with one set of classes.

Even this inconvenience would not be felt if the Senate had accepted the Director's recommendation to change the Matriculation examination month from December to May, or if the Director had recommended the holding of the Upper Secondary examination in December. But, though it is open to school-managers to move for a change in the existing regulations, it is clearly the duty of headmasters to arrange their time-tables as best they can in conformity with the notifications in force for the time being.

We agree with our correspondent in thinking that the appointment of a temporary teacher year after year for the session—January to May—is impracticable. Take the case of a school that primarily prepares pupils for the Matriculation and secondarily for the Upper Secondary examination; it will be seen that it is for only a few hours in the week that the High school classes have to be split into sections—4 hours a week for the extra Translation recommended to be done in the 4th and 5th forms, one hour a week for the 4th book of Euclid in the 6th form, *i.e.*, 5 hours a week besides the Science and Technical hours. Two technical subjects will generally require 7 or 8 hours a week. A technically qualified teacher is necessary for teaching the technical subjects; since for the first 2 or 3 years he will have only 7 or 8 hours of technical teaching, he can also do the extra 5 hours' work for the Upper Secondary

sections. His services can therefore be utilized for 12 or 18 hours more. In the last session of the Upper Secondary examination course, *i.e.*, in the 14 weeks from the 15th January to 1st May, the technical assistant can teach the Upper Secondary boys for 13 hours, and two or three other assistants may be made to sacrifice a portion of their leisure hours and teach the Upper Secondary boys 10 hours a week; the Pandits will take them the remaining 7 hours. The distribution of work may be made even more easily if the extra hours for Translation and Euclid be reserved every year for the second or longer session—July to December, as in that case the technical assistant can share 17 or 18 hours for the Upper Secondary boys in the first session. The framing of the time-tables will then give some real work to the headmaster. When several technical subjects are introduced, a second technical assistant will become necessary; and he will be available for general work also. It must be noted that the same technical subject is not to be taught separately to the three forms; when Mensuration or Book-keeping is begun, all those in the High school department who are to learn it must be put together and prepared for the same examination in that subject. In a small school, the appointment of one duly qualified technical assistant will enable the school to prepare for both examinations.

We reserve for another issue our remarks on the advisability of introducing changes in the existing regulations.

DR. FITCH ON THE WORKING OF THE FREE SCHOOL SYSTEM IN AMERICA, FRANCE, AND BELGIUM.

We have received direct from Dr. Fitch, one of Her Majesty's Chief Inspectors of Training Colleges, an important Memorandum by him on the Working of the Free School System in America, France and Belgium. It is of special interest, coming as it does at a time when England is adopting the principle of Free Education, and when there is a talk of extending the same principle to Ireland. The results arrived at are based on Dr. Fitch's personal experience and investigation in the countries under discussion. The Memorandum consists of some 40 pages and yet is sufficient to give one an idea of the characteristic features of the systems of education in vogue in America, France, and Belgium—three of

the leading exponents of advanced educational systems. The subject is such an important one that we have been at some pains to lay before our readers Dr. Fitch's experience, expressed as far as possible in his own words. We ourselves derive some comfort from the fact that the views we lately put forward on the question of Free Education find a strong confirmation in the pages of this memorandum. From independent sources we came to the conclusion that Free Education in America had not been instrumental in improving attendance, or in rendering education generally more efficient. We are gratified to find that we have so high an authority as Dr. Fitch on our side. He is emphatic in stating that the large and increasing number of private schools in America which exist side by side with the State schools have their origin in the social exclusiveness which grows up inevitably with the increase of wealth. Rich parents do not like the associations of the public school, but often desire for their children, especially for their daughters, education of a more sheltered and "select" kind. Moreover, payment implies control, and there are many parents who, though not rich, nevertheless prefer to pay fees, and thus to secure for themselves an amount of influence over the course and management of the schools to which parents as such would not be entitled if they used the public institutions. There are some parents also who dislike the rigid regulations respecting the curriculum of instruction which characterize the State systems, and who prefer schools in which the teacher has a freer hand, and more power to adapt his instruction to local and personal circumstances. But by far the most potent of all the influences which are thus detaching so many scholars from the common schools are to be found in the religious objections to the whole system. That system is entirely secular, and while acceptable to the majority of the inhabitants of the States, is viewed with disfavour by many members of the Episcopal and Lutheran and other churches, and is profoundly unsatisfactory to the Roman Catholic Church. At great personal sacrifice, therefore, many of the congregations keep up elementary schools at their own cost, in order that they may impart in them the religious instruction to which the several religious bodies attach most importance. . . . Thus the States lose the co-operation of many of the ministers of religion and other educated persons, whose services and local influence might be of great value in raising the

general tone of national education. And from the same cause the area of the State's authority and usefulness is seriously restricted, since its prerogatives do not extend beyond the public school system, and since in the ever widening region occupied by the private and parochial schools, the teachers offer no guarantee of fitness to the public, and the work is never inspected or reported on, aided, or controlled. That the educational problem in the United States has not been finally solved by the uncompromising secularism of the public schools is evident from many signs. Dissatisfaction with the working of the existing system, and especially with its inadequacy to meet the wants of the whole community, finds frequent expression among leading thinkers and writers.

As regards Attendance, Dr. Fitch remarks:—"It is apparent from these data that the mere existence of an ample public provision for gratuitous education does not by itself suffice to secure regular attendance. That 12,138,199 names, or more than one-fifth of the whole population were recorded as those of persons under instruction during some part of a certain school year, is not in itself a statement of much value, when it is remembered that the statistics of enrolment represent only a fitful and uncertain attendance lasting in many cases only a few weeks. It is worthy of notice that even in Boston, where the average is exceptionally high, it is reported that out of a total population of 72,044 children between the ages of 5 and 15, no less than 7,366, or more than one-tenth, do not attend any school at all, private or public.

Dr. Fitch proceeds:—"The reasons for this result are not far to seek. America is essentially republican. The sense of equality and of personal rights is strong, not only in the whole of the adult community, but among the young scholars themselves. Compulsory laws affecting the duties of parents and children are therefore alien to the spirit and the genius of the people. Nor is the social and industrial condition of America such as to impress parents strongly with the need for any thorough or systematic course of instruction for their children. Reading, writing, and arithmetic, and a certain amount of mental activity, such as the American teachers generally know well how to impart, are felt to be indispensable; and these are picked up in a more or less desultory fashion by even the least favoured of the American youth. And in a land bursting with enterprise and vigour, and presenting

many forms of intellectual stimulus outside the walls of the school-room, a comparatively small amount of book learning will go a long way. Where the openings to interesting and promising employments are so numerous, it is inevitable that the young should fail to see any necessary connexion between success in life and a very serious or prolonged course of education. Herein lies the reason for the striking contrast observable between the American Union and these older European States to which we have been accustomed to look for help and suggestion in regard to the organization of public instruction. A lad of any ambition, if born in Germany or Switzerland, in Holland or Denmark, generally desires to qualify himself for possible advancement in some other country than his own, or for a mercantile situation in which the knowledge of another language than his mother tongue will be indispensable. All his dreams of prosperity are associated with the study of a foreign language, of commercial affairs, or of some form of applied science. He and his parents feel the need of a thorough and systematic, even a laborious education, if he is to be ready to take advantage of new opportunities and to push himself in the world. An American boy has plenty of energy, but he is less conscious of any stimulus of this particular kind. For the store, the warehouse, the bank, the railway, or the newspaper office, a little elementary education and the sharpness and brightness which he soon acquires when thrown on his own resources will amply suffice. The need of a foreign language is not very evident to him. His field of enterprise and ambition extends over the whole of the North American continent, to say nothing of England and Australia, and that portion of the world in which English is spoken is large enough for him. This general remark must be taken with some limitations. In making it, I do not overlook the large number of scholars in High schools, colleges, and scientific and technical schools, nor the value which is attached to a sound and generous education by a large number of the more enlightened parents. Nor would it be right to disregard the fact that America abounds with libraries, institutes, reading circles, and other means of mental improvement,

* The statistics show for the whole country an attendance of 116,000 in public high schools, 35,412 in preparatory departments of colleges and in schools of science, and 126,721 in all other academies, seminaries, and private schools professing to give education other than elementary. Thus we arrive at the result that 278,133, or a little more than 2 per cent., out of the 12,291,259 enrolled in places of education, pursue their course beyond the age of 14. At least half of these are gratuitously taught.

of which large use is voluntarily made outside the school-room, and after the school age. But the statement just made is not without an important bearing in regard to the rank and file of American children, and may partly account for the short periods of school instruction in many of the States, and for the irregularity of the attendance.

(To be continued.)

TEACHERS' ASSOCIATIONS.

We are glad to be able to record increasing activity in the formation of these important Associations. The Teachers' College Association has begun the session well with almost 60 members on its rolls. We believe that two or three lately-formed Local Associations have expressed their wish to be affiliated to the parent Association of the Teachers' College. The late energetic secretary of the last named Association, Mr. Prakasa Rao, B.A., L.T., is busy endeavouring to start another Local Association at Chicacole. The Association of Women Teachers, Madras, by its frequent meetings, is giving every evidence of vitality. Most encouraging of all, perhaps, is the actual establishment of a Teachers' Association at Trichinopoly. At this rate of progress we shall soon have our annual Conferences, at which Delegates from all the Local Associations will meet, and, under the presidency of some distinguished Educationist, discuss educational matters of the first importance. For the guidance and encouragement of those who have thoughts of starting similar associations, we give below a detailed account of the formation of the Teachers' Association at the important town of Trichinopoly.

For sometime past a growing desire for a union of Educationists has been making itself felt in Trichinopoly, the second town of the Presidency, possessed of two large Colleges, several High Schools, and sundry junior institutions. This feeling reaching a climax at the early part of the year, a meeting of teachers—representing most of the Educational institutions of the town—took place, at which a Teachers' Association for Trichinopoly town and district was duly formed. At several subsequent meetings the organisation of the Association was developed in detail; the general objects to which its energies should be directed were discussed and established; a managing committee was elected, by whom the necessary rules of the Society were drawn up, which were duly debated and accepted in a general meeting of the Association in the month of April last; and the first meeting of the fully constituted Association for the present time was held on 25th July, when the inaugural address was delivered by the President—the Rev. T. H. Dodson, M.A., Principal of the S. P. G. College.

After some introductory remarks upon the advantages of such a gradual evolution as that through which the Association had passed previous to its Inaugural Meeting, the address (which occupied about an hour and a half in delivery,) fell into three parts.

The first portion dealt with the work of the Association as stated in the rules of its constitution. The consideration of the relations of the State, University, other public bodies, and private individuals towards the work of education was illustrated by references to the revision of the Fee-Notification, the interpretation of Government educational orders, the recognition of High Schools, the Municipal administration of public fund towards junior schools, the excessive selection of schoolmasters for onerous public duties, the work of arousing outside interest in education, &c., &c. Towards primary education the relations of the Association were drawn out by remarks upon the duty of improving the method of instruction, of elucidating departmental rules and objects, of providing books and lectures upon elementary teaching, and of establishing Branch Associations in the district; the benefits of which were shown to be by no means confined to primary education: and some illustrations were offered as to the character of the ideal primary teacher. The duty of preserving and developing the Vernacular was urged upon those engaged in Western education, as a means of assisting education generally and of keeping in touch with all classes. The delivery of lectures upon subjects of popular interest by such an Association of Specialists was supported as a means of fertilising general knowledge; and the need of faith in the performance of those various obligations, apart from any evidence of precocious result, was especially laid down.

The second division of the address drew out some of the further implied objects which would necessarily be fulfilled by the existence of such an Association; such as maintaining the influence of educationists over the forces introduced into the State by the spread of learning; fostering the spirit of study amongst the educated classes in after-life; upholding the social status of teachers and the public regard for educational work by propagating right ideas of education amongst teachers, pupils, and the general public; and diffusing amongst educationists that profounder knowledge of human nature which is so essential a requisite for their work.

The third portion treated of the conduct of the Association, emphasising such points as the need of strict adherence to standing orders of procedure, the duty incumbent upon each member of personal contribution to the work of the Association, and the unstinting self-denial necessarily demanded by any practical effort for the advancement of so vast a work as that of education in a country like India.

KANARESE LITERATURE.

(Communicated.)

We are given to understand that some leading gentlemen in Mysore, Bangalore and Madras are thinking of sending up a memorial to the Syndicate of the Madras University on the subject of Kanarese Literature. Their object is, we learn, to invite the attention of the Syndicate to the many drawbacks that at present exist in the system of making selections and editing books by or under the authority of the University. They urge further, that during recent years the selections have not been all that can be desired and that the Kanarese Matriculation Text issued by the University is but a sorry specimen of the scholarship of its alumni. In the copy of the private papers we have been favoured with, is a paper dealing with some of the more important errors found in the Kanarese Text-books issued during the years 1888, 1889 and 1891. On going through some of these 'notes' one cannot fail to be struck with the justness of the criticisms. But on a matter like the present we do not wish to offer any definite opinion of our own as to the charges brought up. We leave this to those who are specialists in that line of learning. We cannot, however, lose sight of the fact that the *Hithabodhini*, a high class Kanarese monthly of Mysore, has recognised the reasonableness of the movement by allowing a lecture upon the subject delivered at Mysore, to be published in its columns. We are further informed that a considerable portion of the best educated men in the Mysore State have expressed their sympathy and support in the undertaking. Let us therefore hope that the University will, when the matter is brought before it, not fail to sift the question very carefully, and adopt such measures as will ensure a better class of selections and publications by the University in future.

MR. OSCAR BROWNING.

If you should go down to Cambridge and mingle in the academic circles of that interesting place you would occasionally hear references made to one "O. B.," whom you would infer to be obviously a person of no small consequence in the University. You would hear of the last good thing "O. B." had said, of the company he had been entertaining, of his course of lectures, or possibly even of some joke that had been made at his expense. And your curiosity would be aroused, and you would wonder who this mysterious "O. B." was of whom so many men talked. The person in question is Mr. Oscar Browning, Fellow and Lecturer of King's College, and a kind of institution at Cambridge like King's College Chapel.

Mr. Oscar Browning is a gentleman probably approaching his fiftieth year, though he assumes a youthful air and mixes principally with young men. He is of the middle height, but very stout and somewhat unwieldy, his bulky form swaying gently to and fro as he walks along. His hair and slight side whiskers are black; the crown of his head is bald. He has a good forehead, of the ample Shakespearian kind; and his features are rather handsome, though probably if he were to go in for a plainer course of living than that of the dining-hall at King's College, his appearance would be improved thereby. As it is, he gives one a certain impression of indolence and luxury—as of one who fares too sumptuously every day. This may be only an appearance without a substratum of reality, and Mr. Browning may be almost an anchorite, but he does not look like it.

A dozen years ago Mr. Browning was birching the scions of aristocracy at Eton; but he fell out somehow or other with the Eton authorities, and left the College. The story of the quarrel got into the newspapers at the time; but, as it was not a matter momentous in the history of nations, it is not necessary to do more than refer to it. Mr. Browning found his occupation gone, and looked about him to discover what there was he could do. He was a Cambridge man, a graduate of King's College, where he took his degree in the Classical Tripos, and it was natural he should turn with longing eyes to his own University. As it happened, King's College had awakened from its long period of torpor some three or four years before. Time was when little or nothing was done at King's. The College was connected with Eton, Henry VI. having been the pious founder of both, and Eton Foundation boys (called "King's scholars") had Scholarships at King's, where they went in due course, many of them after a time proceeding to Fellowships. Of these there were forty-six at King's, there being more Fellows at one time than undergraduates. Unless he became Tutor, Bursar, or Dean (for which functions he received extra payment), the average Fellow of King's College had absolutely nothing to do but endorse the cheques for his stipend and eat his dinners in the College Hall. It was a lotus-eater's paradise. You had charming rooms, a beautiful lawn to lounge about, a Fellow's garden at the back, and the magnificent Chapel of Henry VI. with its cathedral service every afternoon. Such was the King's College of the old régime, and nothing could be nicer.

But some fifteen or sixteen years ago the Provost and Fellows of King's College made the great discovery that they were living in the latter part of the nineteenth, not in the earlier part of the eighteenth century. University Commissions were about, and the British public was poking its nose into temples of luxury and ease, and inquiring what was

being done there. And so a new departure was made, provision was made for Natural Science, and it was resolved to establish a Lecturership of Modern History, Professor Seeley having given a "boom" to historical study in the University. Who should fill the new lecturership? Mr. Browning thought he was the man for the post, and after consulting some friends, among whom was Mr. Frederic Harrison, "O.B." and his old College and his University were once more reunited through the medium of the Historical Lecturership at King's College. Ever since Mr. Browning's has been a leading figure at Cambridge, and every visitor of the slightest importance is sure to receive an invitation to the elegant suite of rooms which Mr. Browning occupies on the left-hand side of the splendid court. The great poet of the same name has breakfasted in those rooms. George Eliot has been there; so has Mr. Lowell and many other more or less prominent people. At times you may see "O.B." emerge from them in a college "blazer," for he interests himself in the athletic life of the place; and at other times you may see him clothed in white surplice moving over the velvet lawn into the great Chapel, where he will duly ensconce himself in one of the finely-carved stalls.

It cannot be said that Mr. Browning has produced literary work of a monumental character, but he has not been idle since he took up his residence at Cambridge. During that time, in addition to his college lectures, he has written various articles for the *Encyclopædia Britannica*, having especially been entrusted with those on Dante and Goethe. It can scarcely be said that Mr. Browning is a competent authority on "the mystic, unfathomable song" of the mighty genius of Florence. His Goethe work is better, and he has really been a diligent student of the Weimar Sage and of all that has been written about him. A very interesting illustrated article by Mr. Browning in one of the American magazines gave an account of the Goethe house at Weimar. Mr. Browning's more directly historical work has been largely connected with the diplomatic relations of France and England at the time of the French Revolution, and he has published researches showing that it was technically France which was responsible for war in 1793—"a point of immense Parliamentary and journalistic interest in those days, but which has become of no interest whatever in these," as Carlyle observed. Of more interest is Mr. Browning's "Life of George Eliot" in the "Great Writers" series, particularly that part of the little book which relates the conversations that took place between George Eliot and the writer. Mr. Browning gave a lecture only two days before George Eliot's death, on which occasion the chair was taken by a relative of her husband, Mr. Cross, who informed Mr. Browning of her illness, but said

that recovery was expected. Nine days afterwards Mr. Browning was one of the group of mourners at George Eliot's funeral; and her portrait, he tells us, hangs over his writing-table. In addition to the works named above, Mr. Browning has written many literary and historical reviews for the Press of recent years.

But besides "O. B.," the University magnate and the literary man, there is "O. B.," the politician. Mr. Oscar Browning professes the Liberal creed, and he is one of the very small band of Gladstonians at Cambridge, where he takes a part in the political life of the town. In 1886 he led a perfectly forlorn hope by fighting Norwood in the Home Rule interest, and was, of course, "nowhere" on the day of election. It is doubtful whether he will repeat such an experiment at the next election, but he is one of the shining lights of the Eighty Club, and has been a prominent figure at the dinners this year and last at Cambridge, given by that little knot of young barristers and college dons on the look-out for place and fame. He is also occasionally one of the band of genial revellers who find an excuse for supping together in Fleet-street by labelling themselves the Johnson Club. He has altogether a wide circle of acquaintances, and he manages to keep his name pretty assiduously before the public.—*Echo*.

[It is to be regretted that this sparkling account of Mr. Oscar Browning should have omitted all reference to his labours as an educationist in the technical sense of the word.—*Ed.*]

NEWS AND NOTES.

LOCAL AND INDIAN.

It is proposed to establish a Mahomedan Engineering College at Meerut. *

The visitors to the Government Central Museum during last month numbered 32,463, averaging, exclusive of Sundays, 1,202 daily. *

We have received a copy of the Seventh Annual Report of the Students' Literary Association, Coimbatore, and wish that there were many more such useful Societies in existence. *

The Bombay Government has appointed Mr. R. G. Oxenham, Principal of Elphinstone College, Bombay, to be a member of the Joint Schools Committee in the room of Mr. V. S. Desai, resigned. *

The severity of the B. L. Examination and the great strain to which the students are subjected, have induced those preparing for that examination to present a Memorial to the University of Madras. *

A Scheme for improving the status of the Inspecting Branch of the Educational Department and for securing a better class of men in it is now under the consideration of the Director of Public Instruction. *

Mr. P. E. Messinier of the Teachers' College has taken up the duties of Inspector of Schools, Western Circle, rendered vacant by the departure of Mr. E. Marsden, B.A., on three months' privilege leave. *

The report published some time since, that it was in contemplation to cut the connection of Government with Cooper's Hill College, and that it would be converted into a private institution, has been officially denied. *

The number of graduates who have joined the Teachers' College this session is below the number expected. This, we believe, is due to the absence of any provision in the Grant-in-Aid Code giving preference to trained L.T.'s. *

We understand that the gymnasium of the Physical Training and Field Games Association now located in the People's Park, will be removed to Saidapet and placed under the supervision of the Principal of the Teachers' College. *

R. Devaraja Iyer, B.A., is the new Secretary of the Teachers' College Association. Two discussions have taken place this session on the *pros.* and *cons.* of Boarding Schools and Day Schools, and on Town and Country as best adapted for Schools. *

All the Elementary Normal Schools in the Presidency now being maintained by Local Boards will become Departmental Institutions from 1st January 1892. The change will, no doubt, improve the status of the teachers and the efficiency of the training. *

Dr. Mitchell, the professor of Mathematics of the Trivandrum College, has been appointed as the Honorary Superintendent of the Royal Observatory. He is allowed a clerk on Rs. 15 per mensem, and a sum of £100 sterling per annum for the purchase of astronomical instruments. *

Mr. J. Adam, M.A., Principal of Pachiyappah's College, proceeds home in the early part of this month, on a furlough of 12 months. Mr. M. T. Quinn acts for him as Principal during his absence; and Mr. K. Ramanujachariar, B.A., teaches the optional subjects of the History Branch.

The strength of the Rajahmundry College has decreased. The Director of Public Instruction in his review on the Report of the College for the past official year, says that the question of the retention of the College as a first grade institution will have to be taken up, however much he may regret it.

Mr. A. A. Hall, Principal of the Teachers' College, has been elected Secretary to the Victoria Technical Institute *pro tem*. The Institute is already encouraging technical education in several ways. Mr. Hall, the new Secretary, will find ways and means to increase its usefulness, and if possible to centralise its work.

The Fergusson College, Poona, will shortly be raised to the status of a full Arts College. The Syndicate have recommended to the Senate the recognition of the College permanently for the purposes of the First Examination for the B. A. Degree and provisionally for three years for those of the second examination for the said Degree.

Now that the age limit for the Indian Civil Service has been raised, numbers of Indian students, already well-known in their respective Universities, are coming over to England. Next year there will be about 11 candidates, and of these one is Mr. D'Souza (Gilchrist and Madras Government of India Scholar, St. John's College, Cambridge).

Mr. H. B. Grigg, M.A., C.I.E., Acting British Resident of Travancore and Cochin, according to the *Catholic Union*, left for Courtallum on the 3rd August for a change of health. He has, it says, written strongly to the British Government to appoint a permanent Residency Surgeon, which post remains unfilled since the transfer of Dr. White to the Travancore Service.

Since the improved Matriculation curriculum differs so little from the compulsory portion of the Upper Secondary Examination, it would be better if those who pass the University Matriculation Examination from next year are exempted from passing in the compulsory subjects of the Government Examination, except Translation. The Matriculates may then appear for Translation along with F.A.'s and B.A.'s.

We congratulate Mr. Stone, the Acting Principal of Kumbakonam College, on the critical remarks which he makes in his Report on the students' work, and the valuable suggestions he offers for improving the intellectual, social, and moral welfare of the students under his charge. Extracts from the College Report will be found under the head of the Proceedings of the Director of Public Instruction.

One more of the Hill dialects of India had been reduced to writing, and an elementary grammar, with a vocabulary of 1,500 words, has just been issued from the press. The people are the Korkus, who inhabit the Nerbudda division of the Central Provinces and the Melghat taluk of Berar, numbering about 14,000, and the author is the Reverend E. F. Ward, who has been among them a number of years.

A Mussulman girl in Lower Bengal has come forward to break the fetters of the Zenana. She wants to enter the Female Medical School in Calcutta to qualify for the Medical Service. A Mahomedan vernacular journal violently abuses her and expresses alarm that the example of the medical Hindoo reformers should so soon make its influence strongly felt within the Mahomedan Zenana.—*Christian Patriot*.

The Government has, we hear, decided that, from 1st January 1892, the charges in connection with Normal Schools shall be met from Provincial funds. It is not, however, intended by the adoption of this course that the pecuniary responsibilities at present devolving upon Local Boards in connection with education shall be lightened, as the Boards will be required to devote the funds thus set free to the spread of primary education.

For sometime past there has been a talk in Bengal about the formation of a "National University." The movement it is said has been taken up in earnest by a Rajah who has the additional qualification of being a C.S.I. The object of the movement is to revive the true Hindu religion and to arrest the growing scepticism among the younger folks of this country. To effect this object it is proposed to start Sanskrit schools throughout the country, and spread a knowledge of the Shastras.

The Borahay Corporation has adopted the following resolution:—That this Corporation regrets the attitude taken by Government regarding the State grant towards the maintenance of primary education in this city, which is not calculated to promote and encourage the progress

thereof. That in hope, however, of more equitable treatment in future, and in view of the importance of helping the progress of primary education, the Corporation sanctions the expenditure of Rs. 11,800 set apart in the budget for that purpose, so far only as the present year is concerned.

* * *
The Director of Public Instruction has under consideration a scheme for re-organizing the agency of that numerous and useful body of officers known as Inspecting Schoolmasters. The scheme aims at improving the status of these officers, and to secure in future a better class of men than those who have hitherto held such appointments. The service will be made a provincial one and the Local Boards will be partly or wholly relieved from the maintenance of these officers. In the spread of elementary education the Inspecting Schoolmasters, if properly supervised, do all the hard and rough work.

* * *
The Superintendent of Hill Schools in Ganjam having started seven schools in Goomsur, four in Chinna Kimedi, and three in Pedda Kimedi Maliahs, the Government has, on the recommendation of the Director of Public Instruction, approved of their being taken under Government management and worked on the salary results system. None of the present teachers, except one, has passed any examination, but now that the schools are to be brought under the control of the Educational Department, these unpassed men will be gradually replaced by qualified students from the Normal School at Russelkonda and Gunnipar, as such become available, the present unqualified men being either sent to undergo training, or being retained as assistants.—*Times*.

* * *
Government has approved of a proposal made by the Director of Public Instruction that District Medical Officers be required to grant sanitary certificates to managers of schools seeking recognition, as regards all colleges and high schools in a district, and as regards all secondary schools at their headquarter stations; and that Subordinate Medical Officers in charge of dispensaries be required to grant all such certificates for lower secondary and large primary schools within their divisions. With regard to primary schools at the headquarter stations of District Medical Officers, it has been deemed sufficient if the Inspector of the Circle satisfies himself, that under Articles 71 and 19 of the Educational Rules, there is no overcrowding and that the buildings are maintained in substantial repair and in a cleanly condition.

LITERARY AND GENERAL.

Great things are expected of the teachers now being educated in the French normal schools.

* * *
The Boston kindergartens are a great success, and four new ones are to be organized the coming season.

* * *
The University of Adelaide, South Australia, has been admitted to the privileges of affiliation at Cambridge.

* * *
Sir Edwin Arnold is going to America next October with his son and daughter. He will deliver a series of lectures in the various cities.

* * *
The boat club of Oxford University will not accept Yale's challenge to row a race. They will row against Harvard if a match can be arranged.

* * *
The sum of 3,000*l.* has been promised by an anonymous donor towards the erection of the Free Library at Brechin, N. B., which is to be commenced shortly.

* * *
The efforts to promote Geographical education at Oxford are being crowned with success. A travelling scholarship at the joint expense of the Royal Geographical Society and of the University of Oxford will shortly be established.

* * *
Convocation of Oxford has voted grants of books printed at the Clarendon Press, of the value of £25, to each of the following free public libraries:—Fulham, West Norwood, Ealing Clerkenwell, Staly-bridge, Hammersmith, Handsworth, Barnsley, Croydon, and Harrowgate.

* * *
The habit of doing one's work well is not the whole of morality, but it is the heart and core of morality. Without this habit no combination of other virtues and graces can give the character, solidity, and strength. On this as a foundation, the other virtues may be securely laid.—*Boston Journal of Education*.

* * *
The Harvard University Library boasts a remarkable volume containing manuscript copies of all the commencement programmes of the

college, from 1780-1890, and specimens of the order of commencement exercises at intervals from the first graduation in 1642 to the Revolutionary War.

The Ohio Teachers' Association was in session at Chautauqua, N.Y., July 7-9. Professor Hartzler of Newark opened the exercises with an inaugural address, in which he spoke of Chautauqua as the Mecca of learning, the centre of the most extensive study circle the world has ever witnessed.

The two manuscripts which recently divided the prize of \$1000 offered by the American Secular Union for the best work calculated to aid teachers in the important matter of moral instruction on a scientific basis, will soon be published by Houghton, Mifflin & Co., under the title "Practical Morals."

A correspondent writes:—"The range-finder of the future has (probably) at last been discovered. A retired officer of the Indian Educational Department has just forwarded to the War Office a description of a range-finder of his invention, which, for portability and simplicity, has no equal."—*Army and Navy Gazette*.

The tenth general meeting of the German School Union took place in Magdeburg on June 13. According to the report read by Dr. Böckh, of Berlin, the Union has 30,000 members, and has the disposal of £4,200, of which sum £3,500 is distributed in pensions and benevolent gifts. These latter reach members, in all parts of Austria, besides other countries of Europe and America, as well as those in Germany.

The problem of moral education in our public schools is to be solved, not by introducing lessons from a text-book or exhortations by the teacher into the already overcrowded curriculum, but by securing teachers who will require the scholars to do every piece of schoolwork well; to treat every schoolmate considerately and kindly; and to cherish the welfare and honor of the school loyally and devotedly.—*Boston Journal of Education*.

The Curatorium of the Society founded in Berlin for the promotion of the History of German Education and of German Schools has published an appeal for help in the aims of the Society. The publication

231

of the Society consist of the volumes of *Monumenta Germanica Paedagogica*, edited by Dr. Karl Kerbach, and in pamphlets issued from time to time. Contributions to be sent to Dr. K. Kerbach, Berlin W. Ansbacherstrasse 56.

James Russell Lowell, LL.D., D.C.L., whose death Reuter announces, was a famous American Statesman and Scholar. He was born in Massachusetts in February 1819, and was educated for the law, which however he abandoned for literature. He published many works both in prose and verse, the most famous of which, perhaps, was "The Biglow Papers," a collection of humorous poems on political subjects written in the Yankee dialect in 1843.

The Agricultural College recently established in Cairo is prospering very well. The Principal is Mr. Samuel Wallace, brother of Professor Wallace, of Edinburgh University, and he is heartily supported by the Egyptian Government. About 60 students have been admitted, many others having been excluded owing to lack of accommodation. A garden and farm of 300 acres is attached to the establishment, where experiments are carried out and the employment of Western tools and methods is demonstrated.

The writer of the article on Oxford in the new edition of Chambers, Encyclopædia says:—"The Oxford course is entirely out of touch with the professional education of the country. The Oxford Undergraduate, entering the University at 19 or 20, finds himself at 23 or 24, after the expenditure of £800, or £1000, and the formation of idle habits and expensive tastes, with his whole life to begin afresh." This is not only a most severe, but also a most unjust comment to pass on Oxford Undergraduates generally.

THE WORCESTER METHOD.—The Worcester State Normal School, E. H. Russell, principal, has developed a system of child study and observation record supplementary to the formal study of psychology that deserves a wider recognition than it has hitherto received. The student-teachers or teacher-students are inspired and encouraged to observe the doings and sayings of little children under all circumstances, and to make a record of these observations. They are skillfully taught what to look for, how to observe and how to record whatever is worthy of note.

Notes of lectures are a peculiar institution of girls' schools, which flourishes in spite of anathemas. A story we have lately heard may perhaps, on the Horatian principle, be more effective than denunciations. A head-mistress, in reviewing a pile of note-books, lit on the following entry: "Abraham may be best described as a bellowing sheep." The writer was sent for, and protested that she had taken down the very words of the teacher. The teacher was sent for and could offer no explanation, when suddenly a light dawned on her as she remembered having told the class that Abraham was like a *Bedouin sheik*.—*London Journal of Education*.

* * *

Though the main battle of Free Education has been fought and won, the campaign is but just opening, and we advise both friends and foes of the new system to expend 2½d. on a "Memorandum, by J. G. Fitch, Esq., on the working of the Free School System in America, France, and Belgium," one of the most instructive parliamentary papers that has been issued this Session. Mr. Fitch has a happy gift of plucking the heart out of blue books, marshalling his facts, and presenting them in the clearest light. He writes without prepossession, or rather he keeps his own views strictly in the background, leaving his readers to draw their own inferences.—*London Journal of Education*.

* * *

TEACHING PAYS.—Although teaching is not a financial bonanza, it has taken a long stride in advance of the old-time financial disadvantage of the profession. If the average man of brains graduating from a University to-day will take the time to fit himself for professional work, as he would for medicine, law, or the pulpit, he will stand as good a chance of getting a satisfactory living as though he had entered either of the other professions. "There are no such plums as in the law; he may not get as large a salary at first as the minister; he will probably never keep as many horses as the physician, but he will have a good salary, constant employment and a pleasant social position."—*Boston Journal of Education*.

* * *

In the current *Deutsche Medizinische Wochenschrift* there appears an article by Dr. Cold, remarkable in many respects, wherein many of the world's evils are attributed to the fact that people do not get enough sleep. The new-born babe gets its "rights and needs" in this respect, sleeping all its time and waking only to get fed. Growing children, too, generally get as much sleep as they require till their schooldays begin. Thereafter a positive injury is done to them in the sleeping way. Every child from 10 to 12 years old, Dr. Cold argues, should have from ten to

eleven hours' sleep in the twenty-four hours, and up to 20 years of age not less than nine hours' sleep. Every adult, too, should sleep nine hours.

* * *

There are at present 28,625 students matriculated in the twenty-one German Universities, a number smaller than that of last year (28,711), and still smaller than that of the previous year (29,317). The numbers of students attending the respective faculties are 55,552 for theology (4,251 evangelical, and 1,301 Roman Catholic); 7,381 for law, 8,907 for medicine, and 6,785 for philosophy, which includes classics, modern languages, and natural science, as well as philosophy in the narrower sense of the word. These numbers show a slight increase in the schools of Roman Catholic theology, law, and medicine, but a not inconsiderable decrease in the other schools. Among the students are 1,903 foreigners, 6.6 per cent. of the whole number.

* * *

Prof. J. H. Canfield, ex-president of the N. E. A., is to have charge of a new study in the Kansas University; namely, the "Status of Women in the United States." It will open with a brief review of the condition and position of women in all countries and in all ages, down to about A. D. 1550. Then will follow a more careful study of women during the century preceding the colonization of America, to determine what may be called fatherland influences. Women in America will next claim attention in colonial, Revolutionary, and early nineteenth century periods. The course will close with a careful examination of the legal, political, industrial, educational, and professional status of women in the several states of the Union.

* * *

A number of prominent New York men and women have organized, for educational and philanthropic purposes, the University Settlement Society, whose object is to locate systematically those college graduates and other educated people who will join in the movement to benefit those tenement house districts inhabited by the poorer and more ignorant classes. Thus men and women of education are to be brought into closer relations with the laboring classes for their mutual benefit. Places of residence are to be established for the college men in these tenement districts, and it is intimated that the places where people of the neighborhood meet for social and educational purposes will be the principal scenes of their activity.—*Boston Journal of Education*.

* * *

Matilda Aston, the blind girl of seventeen years of age, who succeeded in passing the entrance examination at Melbourne University.

New South Wales, will try for the B.A. degree; the subjects she has chosen to study for this degree are Latin, English, natural philosophy and deductive logic. A fund to pay all her personal and academic expenses has been started in Melbourne. Her examinations were carried on by the aid of an amanuensis and a witness. They had a room by themselves. The amanuensis read the questions and the blind girl dictated the answers. The subjects were English, French, arithmetic, geography, history, physiology and botany. In the arithmetic she worked out the problems by her own systems and then read the working and answers to the amanuensis, who wrote them out.

SCHOOL PHYSICIANS.—Paris has 130 school physicians, each of whom must visit every schoolroom in his group, of from fifteen to twenty, once a month and note the condition of the out-house, ventilation, light, heat, etc., and once a month must note the conditions of eyes, ears, teeth, mouth, and general health of each child. For this service the physicians are paid \$150 each, per year. This law has applied to France as a whole for four years. There are indications that the practice, with modifications may be very generally adopted throughout Europe, but we suspect that it will never apply to America. We have too few schools in which the health of the child is not fairly well looked after to make it any object. Our people would be sensitive about having the children thus examined by the wholesale, and our physicians would hardly be satisfied with \$150 a year.—*Boston Journal of Education*.

The essential qualities for a man of business are of a moral nature; these are to be cultivated, first. He must learn betimes to love truth. That same love of truth will be found a potent charm to bear him safely through the world's entanglements. I mean safely in the most worldly sense. Besides, the love of truth not only makes a man act with more simplicity; and, therefore, with less chance of error; but it conduces to the highest intellectual development. The following passage in the *Statesman* gives the reason:—"The correspondences of wisdom and goodness are manifold; and that they will accompany each other is to be inferred, not only because men's wisdom makes them good, but also because their goodness makes them wise. Questions of right and wrong are a perpetual exercise of the faculties of those who are solicitous as to the right and wrong of what they do and see; and a deep interest of the heart in these questions carries with it a deeper cultivation of the understanding than can be easily effected by any other excitement to intellectual activity."—*Echo*.

237

REVIEW OF EDUCATIONAL JOURNALS.

There is nothing particularly interesting in the *Educational Magazine*, the organ of the European Teachers' Association at Calcutta. The only original matter it contains is a very short sketch of popular education in England. The rest of the Magazine is made up of questions on school work, and extracts. From Agra comes the first number of a new Educational Journal—*The Teacher*—the English of which, where anything original is attempted, is but poor. Its 36 pages consist in great measure of school work and extracts. For a vast continent like India it is remarkable what a paucity of good educational and periodical literature there is.

The Madras Christian College Magazine for August contains an interesting paper by Mr. Macmillan on the *Greek Theatre and Audience*. The educative value of the Greek Drama is put in a clear light, although we think Mr. Macmillan's words 'that considering the character of Athenian tragedy, we may regard it as an educational institution of immense power, perhaps more effective in spreading education in a broad sense of the word than many famous Universities' must be taken with due reservation. The fact is that the average Athenian was incapable of deriving much benefit from higher art and literature. Like the average man all over the world he enjoyed the displays, but failed to take to heart the lesson taught. On this subject we would refer the readers of Mr. Macmillan's able papers on the Greek Drama to a recent and most interesting work by Mr. Evelyn Abbott (Balliol College, Oxford) on *Pericles and the Golden Age of Athens*. The book is well written and illustrated. The writer of the note on *Free Education* has our sympathy. Free education is not a panacea for all the ills of suffering humanity. The experience of contemporaneous countries goes to show that it must be supplemented by other measures to render education efficient. We are glad to see that the Christian College and the Presidency College have abolished their Free Scholarships, and that the Acting Director is recommending a similar course to other Colleges. Stipendiaryships awarded after an open competition, are to take their place. It seems strange that an institution of such importance as the Christian College should be without a *Calendar*. But its alumni will be glad to hear that one will soon see the light of day.

The London Journal of Education for August is a fairly, interesting number. The Select Committee on the *Teachers' Registration Bills* have brought out their report. It recommends a system of registration in the case of secondary teachers, which shall be compulsory only in the case

of future teachers. On existing teachers no legal disabilities should be imposed. At present it is not known whether elementary teachers are to be incorporated or not in the register. The new "Albert University" of London is to require, as a minimum, two years' residence. It has a free hand as regards its curricula, examinations, degrees and faculties, except that candidates for degrees are to be examined, and that one Examiner at least, not being a member of the teaching staff in any College, is to take part in all examinations for every branch of study. The new University may take up the work of Extension Lectures, Local Examinations, or the examination of schools. We wish it all success, and trust its example will stimulate us here in India to achieve a similar triumph. Our namesake devotes two or three of its leaderettes to *Dr. Fitch's Memorandum on the working of the Free School system in America, France, and Belgium*, and advises all alike to obtain it. As we have allowed Dr. Fitch to speak for himself elsewhere in our columns we offer no further comments here. *The Teachers' Guild of Great Britain and Ireland* lately held its annual meeting. It is in a flourishing condition, important branches being affiliated, and several new members joining its ranks. It is doing its best to obtain the recognition of teaching as a learned profession, and is slowly breaking down the barrier which has hitherto existed between teachers in schools of different grades. A very interesting paper on the *pros and cons of Mixed Classes in Intermediate Schools* shows that much is to be gained by the admixture of boys and girls for teaching purposes. Intellectually, socially and morally the admixture where it has had a fair trial, has been a success, both in England and America.

The American journals for July are specially interesting, owing to the fact that teachers in that country devote a great part of their vacation to the meetings of their different associations. These meetings are held in some of the best health resorts that America can boast, and do incalculable good by bringing together teachers from the four quarters, by stimulating their energy and enthusiasm, and by being made the occasion for the delivery of great speeches and thoughtful addresses by leading educationists. We live in hopes of seeing such meetings inaugurated in India. *The Boston Journal of Education* devotes most of its pages to abstracts of the addresses. One paper treats of the *Two aspects of Education*. The one which arises from the necessity of the teacher to be conservative and radical at the same time in methods of instruction and discipline, because the teacher is obliged to restrain the native impulses of the pupil and induce rational habits in place of caprice, and yet on the other hand lead him to see the desirableness of

the new habits. The German Educators are noteworthy as inclining to the extreme of the developing method, while the Anglo-Saxon people tend towards the other extreme of mechanical methods and lay great stress on external authority, both in the discipline of the school and in the conduct of the studies. The other aspect is based on the necessity of training the youth for business and for the special accomplishments that are to enable him to make a living, seeing that modern civilisation rests on productive industry; and on the other hand the higher necessity to give him general culture and fit him to live with his fellow-men and participate in the rich inheritance of civilisation! Another paper lays great stress on the necessity for fitting the great masses of youth for American citizenship—the necessity of taking these masses as they are found, of diverse nationalities and antagonistic religious faiths, sometimes from homes of ignorance and vice, where all law and restraint are hated and where exist all forms of old world prejudice, and fusing them into a oneness born of mutual respect that they shall be able to live together as American citizens. This is a gigantic task for America, but she is doing her best to accomplish it. Would that India would take the lesson to heart! Another paper says that the problem of moral education in our public schools is to be solved, not by introducing lessons from a text-book or exhortations, by the teacher into the already over-crowded curriculum, but by securing teachers who require the scholars to do every piece of schoolwork well; to treat every schoolmate considerately and kindly, and to cherish the welfare and honour of the school loyally and devotedly. This is another lesson India needs to take to heart!

CORRESPONDENCE.

To the Editor, Madras Journal of Education.

SIR,—A graduate enters the Teachers' College for training in January or July and undergoes training for 18 months. During this period, he attends the lectures on Principles of Education, History of Education and Method,—the subjects for the written portion of the L.T. Degree—teaches in the Practising School under strict supervision, and is taken through a complete course of blackboard exercises to enable him to pass the Practical portion of the L.T. Degree. In addition to these he attends special classes in Drawing, Agriculture, and in at least two of the subjects of the Higher Examination Syllabus. At the end of the course he becomes a Licentiate in Teaching and is given by the Commissioner of U. C. S. Examinations certificates of having passed in the half-a-dozen subjects above mentioned. But when he goes to the School or

College which sent him for training, or which requires his service, he is very much disappointed to find that he is placed by the Grant-in-Aid Code on a par with untrained and non-certificated graduates of some years' experience, ordinary certificated graduates of less experience, and untrained L.T.'s. These latter are graduates who take to the profession of teaching without any previous preparation, and accept the most favourable terms (to the Managers) and fulfil the conditions of the University bye-law by practising the profession for two years. They then, along with men trained for 18 months, apply for the L.T. Degree Examination and manage to pass it. They have not seen the inside of a training Institution, and do not possess any knowledge of the various extra subjects which a trained L.T. possesses. As knowledge in India is not generally valued for its own sake but always measured by the amount of Rupees, Annas, and Pies which it may bring to the possessor, the trained L.T. with better knowledge and preparation thinks that he had unwisely wasted his time in the Training College. If the Grant-in-Aid Code allowed him a higher grant, the manager of the school would pay him more than the untrained L.T., which would certainly confer on the trained graduate a better status. Therefore, I think, the Government must be moved by the Director to insert a clause in the Grant-in-Aid Code entitling a trained L.T. to a higher rate of grant than an untrained L.T. Unless and until this clause is introduced, the graduates will not generally find training in the Teachers' College profitable to them.

August, 1891.

A GRADUATE.

SIR,—Those engaged in educational work in this Presidency have to thank you for the suggestions you offer them in the last number of your Journal for preparing simultaneously candidates for the Matriculation and Upper Secondary Examinations. The Upper Secondary Examination is giving managers and teachers many an anxious hour; and it is therefore well to see whether your suggestions are practical.

The primary difficulty is about the dates of these examinations. You suggest the promotion of boys to the High School Department in January, and sending up Matric candidates after three years, and Upper Secondary candidates at the end of three years and a half. How is the class for the extra six months to be formed? You seem to favour the opening of a session class and the appointment of an additional teacher for that class for six months. But would it be wise (from the financial point of view) to have a class for the very few boys that go in for the new Examination? And is it easy to secure at the beginning of every year the services of a teacher for six months?

Difficulty, again, is offered by the difference in the curricula for the two examinations. Your suggestions recommended the constant splitting up of all the High School Forms, which means two additional teachers at least for the High School. Most of the High Schools in this Presidency are too poor to employ these additional teachers. The experiment may be tried in schools under Government control, and in institutions like the Pacheyappa's that are very liberally endowed.

You yourself, Sir, admit that the new curriculum for the Matriculation Examination differs very little from the compulsory portion of the Upper Secondary Examination. Then, why not recognize the Matriculation itself as the compulsory part of the Upper Secondary? The Upper Secondary certificate may be issued to such as pass (in addition to the Matric) a special test in Translation and Composition (the only important features of the Upper Secondary Examination), and come off successful in the optional subjects.

SUGGESTION.

[The reply to this communication will be found in another column under the heading of "Upper Secondary Classes."—Ed.]

ANSWERS TO CORRESPONDENTS.

Mr. P. G. Vanchi Aiyar. The notification of the abolition of Hanumanta Rao's Geometry appears in the *Fort Saint George Gazette*, p. 483 of June 2. But a subsequent notice last month stated the book would not be abolished till 1894.

Mr. Narayana Samier. The following books should be read for the ensuing L.T. examination:—

Principles of Education.

1. Spencer on Education.
2. Bain's Mental and Moral Science.
3. Sully's Outlines of Psychology.
4. Bain's Education as a Science.
5. Bain's Mind and Body.

History of Education.

1. Compayre's History of Pedagogy.
2. Quick's Educational Reformers.
2. Leitch's Practical Educationists.
4. Oscar Browning's Educational Theories.

Methods of Teaching.

1. Fowler's Discipline and Instruction.
2. Gill's School-Management.

3. Currie's Common School Education.
4. Landon's School-Management.
5. Fitch's Lectures on Teaching.

Special Period for 1892.

Plato's Theories of Education as set forth in the Republic.

[We have received letters and papers with reference to the new Canara High School, Mangalore, and the resolution to abolish the Upper Secondary Department of the Municipal High School at Anantapur. We regret we have no space to discuss the documents.—Editor.]

THE STUDENTS' COLUMN.

We are glad to be able to state that we have received several solutions of the problems set in our last issue. Those by I. S. are printed as being, in our opinion, the best. The account of the History of Education in this Presidency has been kindly undertaken by Mr. Sattianadhan, M.A., LL.B., who, by special permission, has had access to every available document on the subject. The account will be found in another column. It should prove useful to all Educationists, and particularly so to those students who are preparing for the L.T. degree. In our next issue we hope to be able to announce the name of the subject for the best answer in which a money prize will be given by a generous friend, as stated in the editorial notice.

Solutions by I. S. to Questions published in the August number of the Journal.

1. (i) The least number of p digits is 10^{p-1} and the greatest number of the same number of digits is $10^p - 1$. The p^{th} power of the number, therefore, lies between $(10^{p-1})^p$ and $(10^p - 1)^p$. It is, therefore, less than 10^{p^2} and equal to or greater than 10^{p^2-p} . Hence the number of digits is equal to or greater than $p^2 - p + 1$ and less than $p^2 + 1$. It may therefore be any number between $p^2 - p + 1$ and p^2 (both inclusive).

(ii) (a) The number of m digits lies between 10^{m-1} and $10^m - 1$; and the number of n digits lies between 10^{n-1} and $10^n - 1$. The product therefore lies between $10^{m-1} \times 10^{n-1}$ and $(10^{m-1})(10^n - 1)$; i.e., is equal to or greater than 10^{m+n-2} and less than 10^{m+n} . The number of digits, therefore, is $m + n - 1$ or $m + n$.

(b) Here let m be greater than n .

If the first digit of m is greater than that of n , then the quotient contains $m - n + 1$ digits; if less, $m - n$ digits; if equal, examine the succeeding digits and put down the number as $m - n + 1$ or $m - n$ according as the first greater digit occurs in m or n .

2. (i) Since $(x-p)^2$ divides $ax^3 + bx^2 + cx + d$, the latter expression is divisible by $x-p$ and the quotient by $x-p$. By actual division we have $(x-p)ax^2 + bx^2 + cx + d = (ax^2 + (ap+b)x + ap^2 + bp + c)$.

$$\frac{ax^3 + bx^2 + cx + d}{x^2 - 2px + p^2}$$

$$x^2(ap+b) + cx + d$$

$$x^2(ap+b) - px(ap+b)$$

$$x(ap^2 + bp + c) + d$$

$$x(ap^2 + bp + c) - p(ap^2 + bp + c)$$

$$ap^3 + bp^2 + cp + d.$$

This remainder is 0.

The quotient divided by $x-p$ leaves the remainder $3ap^2 + 2bp + c$.

[The remainder is obtained by substituting p for x in the dividend.]

This remainder therefore is zero.

Now $3ax^2 + 2bx + c$ divided by $x-p$ leaves the remainder $3ap^2 + 2bp + c$ which we have shewn to be zero. Therefore $3ax^2 + 2bx + c$ is divisible by $x-p$.

(ii) (a) Proceeding as in (i) we find

the first quotient to be $ax^2 + x^2(ap+b) + x(ap^2 + bp + c) + ap^3 + bp^2 + cp + d$, and the first remainder $ap^3 + bp^2 + cp + d$;

the second quotient $x^2 + x(2ap+b) + 3ap^2 + 2bp + c$,

and the second remainder $4ap^3 + 3bp^2 + 2cp + d$;

and the third quotient $ax + 3ap + b$, and the

third remainder $6ap^3 + 3bp + c$.

The remainders are each of them zero.

Now $4ax^3 + 3bx^2 + 2cx + d$ divided by $(x-p)$ gives for the quotient $4ax^2 + x(4ap+3b) + 4ap^2 + 3bp + 2c$, and for the remainder $4ap^3 + 3bp^2 + 2cp + d$ which we have shewn to be zero. This quotient divided again by $x-p$ gives for the remainder $12ap^2 + 6bp + 2c = 2(6ap^2 + 3bp + c)$ which is also zero. Hence $(x-p)^2$ divides $4ax^3 + 3bx^2 + 2cx + d$.

(b) $6ax^2 + 3bx + c$ divided by $x-p$ leaves the remainder $6ap^2 + 3bp + c$ which we have shewn to be zero. Hence $6ax^2 + 3bx + c$ is divisible by $x-p$.

(iii) The given expression is equal to

$$10(b-a)^2 \left\{ (b-a)^2 + 3ab(b-a) \right\} - 15(b-a) \times$$

$$\left\{ (b-a)^2 + 2ab(2b^2 - 3ab + 2a^2) \right\}$$

$$+ 6 \left\{ (b-a)^2 + 3ab(b^2 - 2b^2a + 2ba^2 - a^3) \right\}$$

$$= 10(b-a)^2 - 15(b-a)^2 + 6(b-a)^2$$

$$+ 30ab \left\{ (b-a)^2 - (b-a)(2b^2 - 3ab + 2a^2) + \right.$$

$$\left. (b^3 - 2b^2a + 2ba^2 - a^3) \right\}$$

$$= (b-a)^2 + 30ab \times 0 = (b-a)^2.$$

Hence the expression is divisible by $(b-a)^2$.

3. (i) *

* The negative sign has been omitted in printing.

Let, $a-b=x$; $b-c=y$; and $c-a=z$;

Then, $\Sigma (b-c)^3 (b+c-2a)$

$$= y^3 (x-x) + z^3 (x-y) + b^3 (y-z)$$

$$= - \left\{ x(y^3 - z^3) + y(z^3 - x^3) + z(x^3 - y^3) \right\}$$

$$= - \left\{ x(y^3 - z^3) + y(z^3 - x^3) + z(x^3 - y^3) \right\}$$

$$= - \left\{ x(y^3 - z^3) + y(z^3 - x^3) + z(x^3 - y^3) \right\}$$

$$= - \left\{ x(y^3 - z^3) + y(z^3 - x^3) + z(x^3 - y^3) \right\}$$

$$= - \left\{ x(y^3 - z^3) + y(z^3 - x^3) + z(x^3 - y^3) \right\}$$

$$= - \left\{ x(y^3 - z^3) + y(z^3 - x^3) + z(x^3 - y^3) \right\}$$

$$\text{ii) } \Sigma (x^2 - yz)^3 - 3 \Pi (x^2 - yz) = \left\{ (x^2 - yz) + (y^2 - xz) + (z^2 - xy) \right\} \times$$

$$\left\{ (x^2 - yz)^2 + (y^2 - xz)^2 + (z^2 - xy)^2 - (x^2 - yz)(y^2 - xz) - (y^2 - xz)(z^2 - xy) - (z^2 - xy)(x^2 - yz) \right\}$$

$$[\text{for } a^3 + b^3 + c^3 - 3abc = (a+b+c)(a^2 + b^2 + c^2 - ab - bc - ca)]$$

$$= \frac{1}{2} \left\{ (x^2 - yz)^2 + (y^2 - xz)^2 + (z^2 - xy)^2 \right\} \left\{ (x^2 - yz) + (y^2 - xz) + (z^2 - xy) \right\}$$

$$= \frac{1}{2} \left\{ (x^2 - yz)^2 + (y^2 - xz)^2 + (z^2 - xy)^2 \right\} \left\{ (x^2 - yz) + (y^2 - xz) + (z^2 - xy) \right\}$$

$$= \frac{1}{2} \left\{ (x^2 - yz)^2 + (y^2 - xz)^2 + (z^2 - xy)^2 \right\} \left\{ (x^2 - yz) + (y^2 - xz) + (z^2 - xy) \right\}$$

$$= \frac{1}{2} \left\{ (x^2 - yz)^2 + (y^2 - xz)^2 + (z^2 - xy)^2 \right\} \left\{ (x^2 - yz) + (y^2 - xz) + (z^2 - xy) \right\}$$

$$= \frac{1}{2} \left\{ (x^2 - yz)^2 + (y^2 - xz)^2 + (z^2 - xy)^2 \right\} \left\{ (x^2 - yz) + (y^2 - xz) + (z^2 - xy) \right\}$$

$$= \frac{1}{2} \left\{ (x^2 - yz)^2 + (y^2 - xz)^2 + (z^2 - xy)^2 \right\} \left\{ (x^2 - yz) + (y^2 - xz) + (z^2 - xy) \right\}$$

$$= \frac{1}{2} \left\{ (x^2 - yz)^2 + (y^2 - xz)^2 + (z^2 - xy)^2 \right\} \left\{ (x^2 - yz) + (y^2 - xz) + (z^2 - xy) \right\}$$

$$= \frac{1}{2} \left\{ (x^2 - yz)^2 + (y^2 - xz)^2 + (z^2 - xy)^2 \right\} \left\{ (x^2 - yz) + (y^2 - xz) + (z^2 - xy) \right\}$$

$$= \frac{1}{2} \left\{ (x^2 - yz)^2 + (y^2 - xz)^2 + (z^2 - xy)^2 \right\} \left\{ (x^2 - yz) + (y^2 - xz) + (z^2 - xy) \right\}$$

$$= \frac{1}{2} \left\{ (x^2 - yz)^2 + (y^2 - xz)^2 + (z^2 - xy)^2 \right\} \left\{ (x^2 - yz) + (y^2 - xz) + (z^2 - xy) \right\}$$

$$= \frac{1}{2} \left\{ (x^2 - yz)^2 + (y^2 - xz)^2 + (z^2 - xy)^2 \right\} \left\{ (x^2 - yz) + (y^2 - xz) + (z^2 - xy) \right\}$$

In the same manner it can be shown that

$$\Sigma (x^2 + 2yz)^3 - 3 \Pi (x^2 + 2yz) = (x^3 + y^3 + z^3 - 3xyz)^2$$

$$\text{Hence } \Sigma (x^2 + yz)^3 - 3 \Pi (x^2 - yz) = \Sigma (x^2 + 2yz)^3 - 3 \Pi (x^2 + 2yz)$$

$$\therefore \Sigma (x^2 + yz)^3 - \Sigma (x^2 + 2yz)^3 = 3 \Pi (x^2 - yz) - 3 \Pi (x^2 + 2yz)$$

4. (i) Denote $a^2 + ab - b^2$ by x ; the given expression can then be written

$$(4x + 3b^2)^2 + (6ab - 2a^2)^2 + (6a^2 + 5b^2)^2$$

$$= 16x^2 + 24b^2x + 9b^4 + 36a^2b^2 - 24a^2b^2 + 4a^4 + 36a^4 - 24a^2b^2 + 4b^4$$

$$= 24x^2 - 24a^2b^2 + ab + b^2 + 36x^4 + 36a^2b^2 + 9b^4$$

$$= 9 \left\{ 2a^2 + b^2 \right\}^2 = \left\{ 3(2a^2 + b^2) \right\}^2$$

Hence the given expression is a perfect square.

(ii) Let $x = 3a + 4b + 5c$; then the given expression =

$$\left\{ x - (a+b+c) \right\} \left\{ x + (a+b+c) \right\} \left\{ x + (a+b+c) \right\} \left\{ x - 2(a+b+c) \right\}$$

$$+ 2(a+b+c)^2$$

$$= x^3 - x(a+b+c)^2 + x(a+b+c)^2 - 2(a+b+c)^3 + 2(a+b+c)^3$$

$$= x^3 = (3a + 4b + 5c)^3. \text{ Hence the expression is a perfect cube.}$$

(iii) In this question a, b, c are integers; otherwise the proposition is not true.

$1+3+5+7+9 \dots$ to n terms $= n^2$, for all values of n . Now in this series 9, 25, 49, 81, ... are squares :-

Let s_n stand for the sum of n terms.

$$\text{1st, then } s_5 = 5^2$$

$$s_4 = 4^2$$

$$s_5 = s_4 + 9 \text{ (for the 5th term is 9)}$$

$$\therefore 5^2 = 4^2 + 9 \quad \therefore c = 5; b = 4; a = 3.$$

$$\text{2nd, } s_{13} = 13^2$$

$$s_{12} = 12^2$$

$$s_{13} = s_{12} + 25 \text{ (for the 13th term is 25)}$$

$$\therefore 13^2 = 12^2 + 25 \quad \therefore c = 13; b = 12; a = 5,$$

and so on.

Hence of a, b, c is either 5 or a multiple of 5.

$\therefore abc$ is divisible by 5.

(To be continued.)

* The residue of any number with respect to the modulus 5 must be 0, 1, 2, 3, or 4. Hence the residue of any square number must be the same as that of 0, 1, 4, 9, or 16, that is, must be 0, 1, 4, 4, or 1. Hence the equation $a^2 + b^2 = c^2$ must assume the form $5p + x + 5q + y = 5r + z$, where x, y, z can only have the values 0, 1; 4. Thus residue of $x + y$ must equal z . The only possible cases are

$$\begin{cases} x=0 \\ y=1 \\ z=1 \end{cases}; \begin{cases} x=1 \\ y=0 \\ z=1 \end{cases}; \begin{cases} x=1 \\ y=4 \\ z=0 \end{cases}; \begin{cases} x=4 \\ y=1 \\ z=0 \end{cases}$$

In every case one of the quantities a, b, c is a multiple of 5. Applying the same method we can prove that one of the quantities a, b, c is a multiple of 3. Hence it follows that if $a^2 + b^2 = c^2$ (where a, b, c are integers), abc is divisible by 60 ($5 \times 4 \times 3$).

QUESTIONS FOR SOLUTION.

Mensuration.

1. A Railway embankment 10 feet wide at the top, 18 feet at the bottom and 8 feet deep, extends over a mile. Find how many cubic yards of earth were removed.

2. The examination hall of a college is 60 feet long and 40 feet broad. It has a verandah all round 8 feet wide. The height of the hall is 20 feet and the lowest height of the roof of the verandah is 12 feet. Find the cost of tiling the roof of the verandah at Rs. 2.4 as a square yard.

3. A cow is tethered by a rope 15 feet long to one of the corners of a field (fenced round) 20 feet square for the purpose of grazing. Find the area of the space where the cow cannot graze.

4. Find the area in acres, &c., of a regular octagonal field, the length of each side being 3 chains.

5. The depth of a conical vessel is 10 inches, its diameter at the mouth 12 inches, and its diameter at the bottom 9 inches. Find how often it can be filled from a tank containing 3000 gallons of water. A gallon = 277.274 cubic inches.

6. A ladder is placed against a wall in two positions, the distances of the foot of the ladder from the wall are 9 and 14 feet respectively; the distance between the two positions of the top of the ladder is 4 feet. Find the length of the ladder.

7. A drinking vessel is partly cylindrical and partly conical, the upper part being conical. The diameter of the cylinder is 4 inches, and that of the mouth is 6 inches. The height of the vessel is 10 inches. Find the height of each portion, being given that their capacities are equal.

8. The two parallel sides of a trapezium are 5 feet and 9 feet respectively; three straight lines are drawn parallel to these sides into four equal parts: find the lengths of these straight lines.

MATHEMATICS.

REVIEWS AND NOTICES OF BOOKS.

THE TRIGONOMETRY OF ONE ANGLE, by THE REV. J. B. LOCK. Macmillan and Co., 1891. Price 2s. 6d.

This is an excellent little Manual, consisting for the most part of extracts from the larger work by the same author. It is meant chiefly for mechanical Students and others whose acquaintance with trigonometry need not extend beyond the functions of a single angle. Yet it is surprising how much of real practical value can be included under this head. In this country it will be of less value than in England as it does not correspond with the demands of any of our public examinations. Yet it contains more than many of our passed F.A. Candidates

have thoroughly mastered. It is the work of a practical Teacher who knows the difficulties that beset the beginner and who has cleared them away as far as possible. We need scarcely add that the arrangement, typography, and figures are all excellent.

TEXT-BOOK OF ENGLISH HISTORY FROM THE EARLIEST TIMES. For College, and Schools. By OSMUND AIRY, one of H. M. Inspectors of Schools; Author of 'The English Restoration and Louis XIV,' etc, with sixteen maps. London: Longmans Green & Co., 1891.

This Manual of English History consisting of some 540 pages, is intended primarily for teachers and students whose knowledge of facts is incomplete and yet mature enough to desire to connect events with their causes and effects, and to feel an interest in constitutional questions. An important feature of the book are the summaries which accompany the respective periods, and in which the chief characteristics of the different periods are clearly pointed out. We are pleased to see that the writer has introduced foot-notes referring to his authorities, with the laudable 'hope that the reader may be induced to turn to the books thus brought to his notice.' Owing to the prevalence of Free Libraries in England the English Student has better opportunities for doing this than has the Indian Student. In a book of this nature, the author can make no pretension to style; but the book is carefully and plainly written. The facts are well arranged, and the book contains everything which the ordinary student requires to know. For the earlier period the author depends for his information on such reliable writers as Green, Stubbs and Freeman. The information respecting the Anglo-Saxon system occupies but a couple of pages, and might well have been amplified. The writer, however, has accentuated well the difference between the prevailing forms of Christianity in Anglo-Saxon England, and has shown clearly the benefits which the different kingdoms derived from the organisation of the Church, and how the Church became the nursery of patriots. Throughout the constitutional history is well and clearly written, while much attention is given to the subject of social and political reform. The book without possessing any special merits to distinguish from others already in the field, is well-written and thoroughly reliable, and answers well the purpose for which it is intended.

THE FOURTH FORM READER. Selected and Edited by W. E. HOARE, B.A., (Merton College, Oxford, Vice Principal, Wesleyan Mission College, Madras. Madras, Srinivasa, Varadachari & Co., 1891.

This Reader is the first of a graduated series of reading books for use in High Schools which Mr. Hoare intends publishing. The selection

is a representative one, the type large and clear, and the notes concise dealing chiefly and well with grammatical difficulties. We cannot, however, congratulate the editor on the engravings which he has introduced. They are poor specimens, and are confined to one selected piece only, viz., Robinson Crusoe.

Bell's Reading Book.—GREAT DEEDS IN ENGLISH HISTORY. By the author of Great Englishmen, etc. Illustrated. London, George Bell and Sons, 1891.

This is an admirable little work, and is well adapted for a Reading Book. Some of the most picturesque events in English History are chosen and are told in such simple and taking language, that they cannot fail to interest the young, and to make a vivid impression on their minds. The illustrations are very good, but are rendered almost superfluous by the forcible and graphic descriptions which accompany them. We sincerely wish there were some such books to illustrate the most picturesque events of Indian History for use in our native schools, instead of the dry undigested facts that make up the ordinary text-book. We should like to see the little book under review used as an alternative reading book in all our schools.

THE ADVENTURES OF OLIVER TWIST BY (CHARLES DICKENS). Abridged for use in schools, with Eight Illustrations by George Cruikshank. London: Bell and Sons, 1891.

It is an admirable idea to adapt the most suitable stories of the great novelists to the use of young readers. The story of Oliver Twist is considerably abridged by the aid of explanatory paragraphs. But no appreciable gap occurs in the story with the advantage that the author's very words are in the main retained. Such an arrangement is calculated to induce an early love for reading in the young, while at the same time it introduces them to the threshold of the best English Literature.

Golden Treasury Series.—THE CHILDREN'S GARLAND. From the best Poets. Selected and arranged by Coventry Patmore. London: Macmillan and Co., 1891.

This, with *The Golden Treasury of Songs* which we reviewed in our last issue, forms a very complete hand-book of English Poetry for the young. The selection is a good one, but we miss one or two favourites which might well have found a place in the book, probably owing to the somewhat capricious rule which has regulated the selection, viz., the test of a piece having actually pleased intelligent children. There are

different degrees and kinds of intelligence, and unless the Editor gave his test a very wide application many a suitable poem would naturally be excluded in making the selection.

HEReward 'THE WAKE,' 'LAST OF THE ENGLISH.' By CHARLES KINGSLEY. London, Macmillan and Co., 1891.

This is a specimen of the kind of fiction which we should like to see appreciated by the Indian Student. We wish all our readers who have not yet read this admirable story would spend the few annas necessary to purchase the book. Macmillan and Co. cannot do better than to flood this country with their cheap reprints of standard English Authors. Thus the debased taste will be improved, and where no taste for reading exists at all, such literature must go a long way to create it.

MATRICULATION AND UPPER SECONDARY ALGEBRA PAPERS with Solutions from 1857 to 1891. With a Synopsis of Rules and Formulæ by V. R. VENKATARAMA AIYAR, B.A., L.T., Assistant, Teachers' College, Saidapet. Madras: V. Kalyanaram Iyer, 1891.

In our July issue we drew attention to the same author's F.A. Examination Algebra Guide. The present volume serves as a fitting introduction to the F.A. Guide, and like the latter contains a well-arranged Synopsis of Rules and Formulæ, together with a large number of solutions carefully worked out. We are sorry to notice that the type, though neat, is so inconveniently small.

ELEMENTARY SCIENCE LESSONS. A systematic course of Practical Object Lessons illustrated by simple experiments. By W. HEWITT, B.Sc. London: Longmans, Green and Co., 1891.

This is a capital little book which should be in the hands of every teacher, be he Science teacher or not. Each lesson contains a list of the objects required for illustrating the subject, an analysis of the lesson, and full notes for the teacher's use. These notes not only contain the subject matter for the lesson, but also give clear and ample instructions as regards the method and the experiments to be performed. We undertake to say that any ordinary teacher, by studying well any one of these lessons, and by a careful manipulation of the simple experiments described, could easily engage the all-absorbing interest of his pupils for an hour at a time. The writer is evidently a successful and practical educationist, and has the gift of being able to put others in the way of becoming such themselves.

GREAT SPEECHES FROM SHAKESPEARE'S PLAYS. With Notes and a Life of Shakespeare, edited by W. SCOTT DALGLEISH, M.A. Thomas Nelson and Sons. London, Edinburgh and New York.

We can strongly recommend this work as a reading book for advanced students, or as a manual of elocution. The study of the great dramatist's plays will go a long way to create a taste for the best literature, will improve the style of reading, and fire the imagination. It would be a capital exercise of the Students' powers if he learnt by heart some of the best speeches in the book, and recited them with appropriate action. A good life of Shakespeare prefaces the book, and the Notes are concise and to the point, being exploratory rather than critical.

A GEOGRAPHY OF THE MADRAS PRESIDENCY with a sketch of the Physical Geography of India. Adapted to the requirements of the Primary Examination and the Curriculum of Fourth Standard Classes, in accordance with the Revised Grant-in-Aid Code. By E. MARSDEN, B.A., Inspector of Schools, Western Circle. Price 4 Annas. Recognized by the Director of Public Instruction. Madras: School Book and Vernacular Literature Society, 1891.

This little book being written up to date is likely to supersede the one which has been in use in Schools for some time past. Its figures with respect to Population and Areas have been supplied by competent authorities, while the errors which impair the usefulness of the text-book now in use have no place in Mr. Marsden's manual. In these respects Mr. Marsden's work may be considered superior to the one which it may supplant. But having conceded so much we must confess to a feeling of disappointment in the work under review. We expected from Mr. Marsden, with his varied and great experience of Educational work, a geography of the Presidency based on scientific principles. But such a book has yet to be written. We expected to find in the work before us a plan of the city of Madras, with another showing the surrounding suburbs. We expected this all the more because such necessary plans do not exist in our schools at all, and because the children show such a lamentable ignorance of their own whereabouts, and because teachers have no idea of the importance of teaching geography with the school locality as a starting point. We expected Mr. Marsden to have written a short chapter (which by the way might be made intensely interesting) giving a bird's-eye view of the physical features of the country, the purposes they answer and have answered, showing how the Geography of India has influenced the history of the country, and has made the people what we see them to-day.

An elementary work on geography should be judged by some such tests as the following:—

1. It should direct the pupil's attention to those 'geographical elements' that appeal directly to the senses, viz., the locality in which they live, the different points at which the sun rises and sets, the phases of the moon, the effect of the sun's rays on climate when they fall vertically or slantingly, the position of the sun at mid-day in summer and in winter, the unequal lengths of days and nights, the change of seasons, the effect of rainfall on different kinds of soils, the general direction of the prevailing winds, the animals and vegetables of the neighbourhood, the occupation of the people, &c.

2. It should contain a skeleton map representing the mountains, slopes and counter slopes and rivers. If a geography of a Presidency, it should contain a skeleton map or plan of the capital.

3. It should give a few directions to the teacher as regards the method he should adopt and the apparatus he should prepare in order to give his pupils a clear idea of the structure of the country which forms the subject of his lessons. It should give a few hints whereby the pupils can make an intelligent use of the atlas or map.

4. It should pass over all such points as can be learnt best from atlases, and omit all information that is not of any practical use to the pupils.

5. It should state clearly all those facts which are likely to supply the children with materials for comparison and contrast.

Mr. Marsden's Geography does not seem to stand the above tests. The numerical statements and political facts are correct: but it is cruel to compel a boy to learn by rote the figures representing the area of districts, the length and height of mountains, the population, the percentage of inhabitants speaking different languages, &c. A pupil may know all these things as isolated facts and yet be entirely ignorant of those facts and relations which constitute the basis of the science of geography.

Let us examine a few paragraphs of the book.

Mountains and Hills, pp. 6 to 8.—There are few points in these pages that cannot be learnt from a school atlas. No reference is made to those facts which add life and interest to the points detailed in the above pages and which are connected with the wants and comforts of man—for instance, the book is silent on the facts that the Himalyas protect India from the cold blasts of the north, that by reason of their height their tops are covered with perpetual snows which feed the most wonderful rivers of India, that their northern slope is much longer than the southern, that their sides are clothed with vegetable productions of all the climates of the world, &c., that the height and slope of mountains

determine the height and slope of table-lands, that the slopes and counterslopes of mountains are generally of unequal length.

Of the existing text-books on the geography of the Presidency, Mr. Marsden's work is perhaps the best, but that is but faint praise. We have indicated at length the kind of work which we expected from one with Mr. Marsden's powers and experience. We trust we may have the pleasure, on a future occasion, of favourably reviewing such a work by him. A thoroughly good geography would do much to improve the present bad teaching of this most important subject.

ACKNOWLEDGEMENTS.

- Chancer's Prologue, Edited by Geo. Maddox, B.A. Srinivasa Varada Chari and Co., Madras.
- Gray's Poems, edited with Introduction and Notes, by John Bradshaw, LL.D. Macmillan & Co., London.
- Virgil's Bucolics for the use of Schools, by T. E. Page, M.A., late fellow of St. John's College, Cambridge; Assistant Master at Charterhouse. Macmillan and Co., London.
- Moliere's Les Precieuses Ridicules by G. Eugene Fasnacht, late Assistant Master in Westminster School. London: Macmillan and Co., 1891.
- Macmillan's French Readings for Children by Eugene Fasnacht, with Illustrations by Louis Wain. London: Macmillan and Co., 1891.
- The Journal of the Agricultural Students' Association, Saidapet.

PROCEEDINGS OF THE DIRECTOR OF PUBLIC INSTRUCTION.

Rules for Admission to the Public Service.

Read the following Proceedings of the Madras Government in the Educational Department, dated 25th June 1891, No. 485:—

Read again the following paper:—

G.O., dated 20th June 1889, Nos. 351-2, Educational.

"	"	1st Oct.	"	No. 599,
"	"	11th Dec.	"	770,
"	"	11th Nov. 1890	"	732,
"	"	24th	"	703,

Demi-official from H. B. Grigg, Esq., dated 7th April 1891.

Read also the following paper:—From H. B. GRIGG, Esq., M.A., C.S., C.I.E., Commissioner for the Uncovenanted Civil Service Examinations, to the Chief Secretary to Government, dated Madras, 11th February 1891, No. 158.

As several changes have been made by the Government in the conditions prescribed for the admission of candidates into the Public service, since publication of notification No. 48, dated 20th June 1889, and as much uncertainty appears to prevail among candidates as to the "Service" rules in force at present, I have the honour to suggest that a revised notification be published embodying all the changes that have been recently

sanctioned. I forward a copy of the notification revised up to date, and request that it may be published in the next issue of the Gazette after verification in your office. The alterations made in it are taken from the following notifications:—

No. 56, dated 1st Oct. 1889, published in Part I, page 672.

" 73, " 11th Dec. " " 908.

" 83, " 11th Nov. 1890, " " 868.

" 84, " 25th " " " 936.

I would also suggest that the notification be republished at the beginning of every year, with all the alterations that may have been made in the interval.

No. 485, Educational.

Order.—The Government approves the proposal to republish yearly, with all necessary alterations and additions, the notification containing the rules regulating admission into the Public service. The Commissioner of the Uncovenanted Civil Service Examinations will therefore submit to Government a draft notification, revised up to the 31st December, early in January of each year, and the notification will then be published in the *Fort St. George Gazette*.

2. The Government, however, considers it advisable to revise the draft notification now submitted by the Commissioner of the Uncovenanted Civil Service Examinations for publication. In consequence of the numerous changes made in this since it was originally published, it has become barely intelligible, and certain of the rules contained therein, such as (ii) (b), (ii) (c) (ii) (d) and (iv), are either open to objection in themselves or out of place in a notification the object of which is to prescribe a minimum of educational qualifications for admission to the Public service. Accordingly the following revised notification will be issued in supersession of all previous ones on the subject:—

Notification containing the Rules for admission to the Public Service.

1. No person shall be eligible for appointment to posts carrying a salary of Rs. 15 per mensem and upwards and classed as "superior" under the provisions of the Civil Service Regulations who—

- (1) is not a graduate of a University in the British Empire;
- (2) has not "passed the First in Arts examination of the Madras University;
- (3) is not a "passed candidate" in the Upper Secondary examination; or
- (4) has not passed the Matriculation examination of the London University.

NOTE.—(1) After the 31st December 1893, Graduate and F. A. candidates must pass, if Natives, the Translation Test in Branch I, or, if Europeans or Eurasians, the Translation Test in Branch II, section B, of the Upper Secondary examination, before they can be admitted to any such appointments.

- (2) (a) Persons who passed the Matriculation examination before the 31st December 1890, and also the Hand-writing Test;
- (b) persons who passed before that date the Middle School examination in the first class; and
- (c) candidates who have passed the General Test;

may be appointed to posts carrying a salary of Rs. 15 and upwards in the superior service of Government till the 31st December 1893, after which date this concession shall be considered as withdrawn.

(3) Persons not being Natives of India shall not be appointed to posts open to such unless they are qualified under Art. I supra or have passed some Public examination in the British Empire such as the Oxford or Cambridge Senior Local Examination or satisfy this Government that they have received an education at least up to the standard of the Upper Secondary examination.

2. *Exceptions.*—The restrictions as regards the appointments falling under paragraph I shall not apply to appointments in such departments or districts as may, by an order of His Excellency the Governor in Council, be exempted temporarily from their operation. Such cases shall be governed by the special rules that may, from time to time, be prescribed by notification in the Gazette.

The appointments that are at present exempted from the effect of the restrictions referred to above and the special rules which govern them are the following:—

(1) Upper Subordinates of the Public Works Department.

The general education test in the case of these officers is the Matriculation examination of the Madras or other Indian Universities or the Upper Secondary examination.

(2) Draftsmen and Surveyors.

The general education qualification required of these officers is the Middle School or the Lower Secondary examination.

(3) Hospital Assistants in the Medical Department.

The general education qualification of candidates for admission to the Junior (Hospital Assistant) department of the Medical College will be the Middle School or the Lower Secondary examination till the 1st January 1895 in the case of those from the Northern Circars and the Ceded Districts, and till the 1st January 1893 in the case of others. On and after these dates, respectively, a pass in the compulsory subjects of the Upper Secondary examination will be exacted as a condition of admission.

(4) *Sub-Assistant Inspectresses in the Educational Department.*

The standard of general education required of candidates for the posts of Sub-Assistant Inspector is the Matriculation or the Upper Secondary examination.

3. On and after the 1st April 1891, in order to be admitted to an appointment on a salary less than Rs. 15 *per mensem*, but classed as "superior" under the provisions of the Civil Service Regulations, and (5) on and after the 1st January 1891, to be eligible for all "inferior" appointments specified in column I of the Schedule appended to the Notification dated 25th June 1891, a candidate must have passed—

- (1) the Matriculation examination, or
- (2) the General Test, or
- (3) the Middle School examination, or
- (4) the Lower Secondary examination, or
- (5) the Special Primary examination, or
- (6) the Primary School examination, or
- (7) the Fifth or Sixth Standard examinations when such have been conducted by a

Government Board of Examiners, or

(8) he must hold either an Upper Primary certificate granted before 1st December 1889 or a certificate granted by the Inspector of Schools of a Circle before 31st December 1889, to the effect that he has passed according to Standard IV in Reading, Writing and Arithmetic, and in any two optional subjects.

4. *Exceptions.*—(1) The rules in paragraph 3 do not extend to the scheduled districts in Ganjam, Vizagapatam and Godavari.

(2) Collectors may, with the sanction of the Board of Revenue, exempt any village officer or village establishment from the operation of the rules in this paragraph till the 1st April 1895.

(3) The offices in "Superior" service which are specially mentioned in column II of the Schedule appended to the Notification dated 25th June 1891, are also exempted from the rules contained in paragraph 3.

5. As regards persons admitted to the Public service under the Upper Secondary examination.

A. (i) in the departments under the control of the Commissioners of Land Revenue, the Commissioner of Revenue Settlement, Land Records and Agriculture, the Commissioner of Salt, Abkari and Separate Revenue, and the Superintendent of Revenue Survey, candidates for promotion to, or confirmation in, posts for which those tests are prescribed, must pass in Subject No. 3 (Mensuration), or No. 9 (Surveying and Levelling) of the Government Higher Examinations in Science, Art, Industries and Commerce;

(ii) in the Forest Department, candidates for promotion to, or confirmation in, the posts of Forester and Forest Ranger, must pass in Forestry, Subject No. 34 of the Government Higher Examinations in Science, Art, Industries and Commerce.

B. Subject to such conditions as are attached, "passed candidates" seeking employment in the departments herein undermentioned shall be allowed the following concessions:—

(i) First, as regards the Vernaculars, they shall be exempted from passing—

(a) In the Salt Department,—Test E, Linguistic, of the Salt tests, except section ii.

(b) In the Forest Department,—the Lower language test fixed in paragraphs 38 and 54 of the Forest Code.

(c) In the Education Department,—the Compulsory test prescribed in Notification dated September 1886, if the candidates are Europeans or Eurasians, and have passed in Section A of Branch II in one or two languages, as the case may be.

(ii) Secondly, as regards Special or Technical subjects—

(a) Candidates in the Salt Department who have passed in Optional Subjects 3, 8 or 9, and in the Forest Department in Optional Subject 9, Surveying, of the Government Higher Examinations in Science, Art, Industries and Commerce, shall be exempted from passing the lower standard tests in the same subjects now required in the codes of these departments.

(b) "Passed candidates" shall not be required to pass the Special Translation Test, Lower Grade, to qualify for any appointment for which such test may be prescribed if the language concerned is the vernacular in which they passed in Translation under Branch I, nor shall they be required to pass in the Book-keeping portion of the Special Account Test, if Book-keeping is one of the optional subjects in which they have passed under this notification.

6. Subject to the following limitations, all classes of candidates included in paragraph, *supra* and in note (2) to that paragraph shall be entitled to appear for the Special Tests conducted by the Commissioner for the Uncovenanted Civil Service examinations.

The limitations are—

(1) That until 31st December 1893 only graduates of Universities in the British Empire, and candidates who have passed the First in Arts examination of the Madras University, shall be admitted to Test iii, A, Revenue, Higher Grade.

(2) That after the said date only graduates of Universities in the British Empire shall be admitted to Test iii, A, Revenue, Higher Grade.

(3) That after the said date only graduates and candidates who have passed the First in Arts examination of the Madras University shall be admitted to Judicial Tests ii, A, and ii, B, Criminal, Higher and Lower Grade.

(4) That only graduates and candidates who have passed the First in Arts examination of the Madras University shall be admitted to the test for Sub-Assistant Inspector of Schools, but in the case of Sub-Assistant Inspectresses, "passed candidates" in the Upper Secondary examination and Matriculates may be admitted to this test.

(True Extract.)

(Signed) O. V. BODDY, Major, R.E.,
Under-Secretary, P. W. D.,
for Chief Secretary.

25th June 1891.

Communicated to the Inspectors of Schools; Inspectresses of Girls' Schools; Assistant Inspectors of Schools, with spare copies for Sub-Assistants; Principals, First-Grade Colleges, Medical Colleges, Colleges of Engineering and Agriculture and the Teachers' College; Headmasters, Second-grade Colleges and the Government Madrasa-i-Azam; Superintendents, School of Arts, Presidency Training School for Mistresses and the Reformatory School, Chingleput; and the Registrar of Books and the Curator, Oriental Manuscripts Library.

Report on the working of the Kumbakonam College.

In his report to the Director Mr. Stone, the Acting Principal, says:—

Coming, as I did, fresh to the teaching of English to Native students, I have noticed two things which go far to explain the unsatisfactory nature of the results in English—one is the small amount of attention which students are inclined to give to acquiring the art of expressing themselves in English prose, and the other is their slavish reliance on their annotated text-books, many of which, and by no means only of those produced in India, are quite surprisingly bad.

In all, 2,024 books were taken out of the library during the year under review. Of these, 514 were taken by members of the staff and 1,510 by students, that is to say, each student has by no means taken on an average one book a month. It is not possible to determine accurately the proportion of books taken out which have no direct connection with any of the regular subjects of study, but since the total number of Biographies and Novels taken out is only 476, it may be safely inferred that not more than three such books have been taken out on an average by each student, and I am informed that by no means all books taken out, even of the lighter kinds, are read. The only remedy which I can suggest for this absence of the habit of recreative reading is the addition to the library of a number of books such as are popular in England with children and boys. I propose to address you separately on this subject.

I have made attendance at a certain proportion of Drill and Gymnastic classes on the part of all students not physically unfit compulsory, by making it a condition of the grant of the certificate of attendance required by the University. At present, each College class has Drill or Gymnastics twice a week. I hope next term to classify the students according to physique and agility and to arrange for Drill or Gymnastics for every student at least four days in the week, accepting, however, lawn tennis or cricket as a partial alternative for more systematic exercise. Mr. R. S. Swami Aiyar has been active as Secretary to the Lawn-tennis club, which now contains as many members as can conveniently use one court. Athletic sports were announced in October last, but the entries were so few and the interest shown in them by the students so slight that I postponed them *sine die*.

A new departure during the present year has been the institution of what may be called a "Tutorial system." The students have been grouped under the Lecturers and Assistant Lecturers as "Tutors." In forming the group the wishes of both students and Tutors have, as far as possible, been consulted so as to prevent the breaking of any tie of mutual interest already existing between particular students and Lecturers. The Tutors are by no means intended to do the work of private "Coaches." The responsibility of each member of the College staff for the due performance of his work as Lecturer remains intact. It is hoped that the Tutors will supervise and influence their pupils in all that part of their lives which is passed outside the College lecture-rooms. The system has been too short a time in existence to have produced definite results. I have, however, received Tutorial reports from all the members of the College staff, which show that they have taken up this additional work with great willingness and a keen appreciation of its utility. These reports also incidentally throw considerable light on the home life of the students and it is a very satisfactory feature of them that in no case have the surroundings or associates of a student been reported as unfavourable to good morals. A less satisfactory inference from

them is that there is an almost total want of spontaneous intellectual activity among the students, which is also indicated by the absence of any Literary or Debating Society in connection with the College. Your suggestion in your review of the last report of Literary readings has not at present been acted upon. I venture to think that reading unaccompanied by illustration would have comparatively little effect. Frequent lectures on subjects outside the College course illustrated by good Photographic dissolving views would do something to mitigate the students' hopeless ignorance of the world in which they live and would provide material for thought. These lectures would of course involve additional expenditure, and I propose to address you separately on the subject.

EDUCATIONAL NOTIFICATIONS.

APPOINTMENTS.

Ramachandra Rao Sahib, M.R.Ry. C., B.L., to be Senior Professor, Law College.
Kenworthy Brown, Mr., M.A., Barrister-at-Law, to be Junior Professor, Law College.

Narayan Rao, M.R.Ry. K., B.L., to be First Assistant Professor, Law College.
Jagaran Pillay, M.R.Ry. M., B.L., to be Second Assistant Professor, Law College.
Subrahmanya Aiyar, Avargal, M.R.Ry. S., B.A., Third Assistant, Teachers' College, is appointed Second Assistant, Teachers' College. Acting during the employment of Mr. P. E. Messinier on other duty.

The Acting Director of Public Instruction resolves to make the following acting appointments in the Teachers' College:—

M.R.Ry. M. Seshagiri Sastry, M.A., Second Senior Assistant Professor, Presidency College, furlough for 9 months with effect from 27th July 1891.

M.R.Ry. K. Subrahmanya Aiyar, B.A., Fourth Assistant, to act as Third Assistant, during the employment on other duty of M.R.Ry. S. Subramanya Aiyar.

M.R.Ry. V. R. Venkatarama Aiyar, B.A., Fifth Assistant, to act as Fourth Assistant, vice M.R.Ry. K. Subrahmanya Aiyar.

M.R.Ry. C. T. Parthasarathi Mudali, B.A., Headmaster, Hindu Branch Normal School, Triplicane, to act as Fifth Assistant, vice M.R.Ry. V. R. Venkatarama Aiyar.

M.R.Ry. N. Sadasiva Aiyar, Second Master, Hindu Branch Normal School, Triplicane, to act as Headmaster, vice M.R.Ry. C. T. Parthasarathi Mudali.

C. Raghavaiahari, to act as Second Master, Hindu Branch Normal School, vice M.R.Ry. N. Sadasiva Aiyar.

List of Subscriptions received on account of the Madras "Journal of Education," from 1st to 31st August 1891.

Subscribers not paying in advance are charged Rs. 5-8 the arrears rate.		RS.	A.	P.
General Storekeeper, Madras Railway, Madras	for January 1891	0	8	0
Surgeon J. Smyth, M.D., Madras		1	0	0
Surgeon T. H. Pope, Madras	from July 1891 to June 1892	4	8	0
H. O. C. Cordoza, Esq., Adyar	for 1891 and 1892	10	0	0
Brother Malachy, Adyar	for 1891	4	8	0
Rev. E. Lewis, Bellary	do.	5	8	0
G. Alexander, Esq., Trivandrum	do.	4	8	0
Mrs. A. B. Wolf, Guntur		4	8	0
Eknath Ranga, Lapakari, Gullungha		6	0	0
Head Master, A. M. Female Normal School, Madura.	July 91 to Dec. 92	6	12	0
Rev. L. B. Wolf		4	8	0
Lady Superior, Presentation Convent		4	8	0
President, Taluq Board, Hosur		18	0	0
Do. District Board, Salem	for 1891	4	8	0
Do. Taluq Board, Gumsur	do.	4	8	0
Head Master, L. F. N., Mangalore		4	8	0



THE JOURNAL OF EDUCATION MADRAS.

Vol. V.]

OCTOBER 1891.

[No. 10.]

EDITORIAL NOTICE.

The Editor cannot refrain from thanking the increasingly large number of those who are contributing to the *Journal of Education*. It is gratifying to him that his responsibility is now mainly exercised in selecting what is most suitable for, and worthy of, the Journal. No better proof of the growing popularity of the Journal can be required than this.

PRIZE ESSAY.

Bona fide Students, including Graduates, are invited to compete for a prize to be given for the best paper on "The effects of deficient rainfall on Commerce and on the Public Health."—Papers must not exceed 3 pages of foolscap. **Ten Rupees** will be awarded to the writer of the best essay sent in. The successful competitor's name will be announced, and if his paper is of sufficient merit it will appear in the November number of this magazine. Envelopes, containing the essays, to be superscribed "**Prize**," and must reach the Editor, *The Journal of Education*, Madras, not later than the 24th October. Candidates must state their age, the institution to which they belong, if any, and the examination for which they are preparing.

PARACHERI SCHOOLS.

It is now almost eight years since Municipal Funds first contributed under the Local Boards Act to the cause of education, and in that time much has been done which is, and will be, of incalculable benefit to the country. Much has already been done, much however still remains to be done. Anglo-vernacular Schools and Prial Schools have done much for many, and our colleges have taught much to the comparatively few who can enjoy their benefits: and yet we consider that this great boon has been of a singularly restricted nature. We have conferred it only upon caste-men, and the Pariah has meantime been left in the unfortunate condition in which we found him. This restriction may at one time have been necessary to the success of the undertaking. We may now, we think, consider whether it is not our duty to remove it, and to give education—not merely to the upper classes, who have had time to appreciate this privilege, but also to the Pariahs, the class that needs it most, but who at present have neither the wit nor the energy to ask it for themselves.

The Pariah, it will be known to most of our readers, has in the last few months assumed an unwonted importance. Questions have been asked about him in Parliament, journalists have reported upon his condition, and the highest authority in the Presidency has been at pains to inspect him in person. We may we think predict with safety that before long some attempt will be made to better his condition. What plan should be adopted to attain this end we do not know, and it is, for the most part, beyond our province to enquire. But although in this case, as in every other, practical politics are beyond our scope, there is one point of view from which we are entitled to consider the subject. We argue that no scheme can give a hope of permanent success unless preceded, and assisted by some measure of primary education; unless, and until his mind is developed by education, no reform can make a lasting improvement in the Pariah's prospects.

Although to enforce this statement by argument will seem to most men unnecessary, we will consider very shortly the effect of the most obvious of reforms, namely, a measure having for its object the admissions of the Pariah to an ownership in the land upon favorable terms. Let us suppose that the measure has been so framed as to attain its immediate end, and that Pariahs have been able to take up holdings, and to commence cultivation for themselves. But is it at present either possible or probable that the land would remain in the hands of those for whom it is intended, so long as they continue as we find them now? Bad seasons may come singly or in succession; at each one the

unfortunate Pariah will find himself more deeply entangled in the money-lenders' snares. The season may for many years be good, yet even in that unlikely case, he will be exposed to the temptations of the liquor shop, or will be only too ready to enter into agreements for the sale of his labour, which in fact are slavery, the more real, because they are disguised. The poor mockery of a gift of land would in his present condition merely add to the methods of his debasement. Let us first try to save him from himself; and we may turn round afterwards to discover, whether or no there exist further practicable means to help him.

But if the necessity is great, the return will speedily follow. We have no reason to believe that, if education be judiciously offered, the Pariahs will be slow to recognise and take advantage of its benefits. It is indeed usual to attribute to them an invincible stupidity and dislike of innovation. That the latter is great we are ready to admit; we believe however that the example of caste people, to whom education has given so much, will go far to minimise it. For the former, such reports as we have go far to disabuse it. Those reports come only from missionaries, for they alone have attempted to break ground in this direction; and they give us to understand that with some definite object in view, and when merely the rudiments are in question, the Pariah is both teachable and persevering. For this view we have indeed evidence before our eyes. We can study at every turn a singularly rapid transformation which it has taken only one or two generations to produce. The Madras Pariah "boy" is always with us the best servant in India—ready for any employment from cooking to needlework, from writing a *menu* in French to compiling accounts—quick, persevering and cheerful; and yet he too is derived, and at no great distance, from the despised and debased individual who has never been outside the limits of his village.

If then the people are, as we suppose, ready for education, the method also is not hard to find. The education would be only of the most primary nature. It need neither be complex nor expensive, and it would necessitate no high class college, nor elaborate school. These may be given some day. They would be useless for the present. We ask only for an extension of the Prial school system, and for the establishment of such schools in every Paracheri large enough to support one, as well as in every village. Let each village Munsiff be informed that to encourage the formation of or the attendance at the school will be part of his duties: let Government officials be ordered to enquire at each village which they may visit as to the school's success; and let cases of energy or slackness on the part of such persons be judiciously rewarded, or punished. Such action has been eminently successful in the introduction of each of our

reforms. In the case of vaccination, for instance, an idea particularly repugnant to the uneducated, the swiftness of success has over passed prediction. Such a system of education as we propose would be an infinitely desirable object. Cannot we expect the happiest results, if we again put in motion this machinery to secure their attainment.

* Finally then we have the question of cost. That the expense to be incurred would be great compared to the magnitude of the boon to be conferred we do not believe. For the first few years special grants might be necessary to induce the establishment of schools, and to encourage their masters at the outset. These however need not continue, or outlast the difficulties of commencement. For the rest the expense need not be great. Our instructors, and their training colleges are ready, and so is the scheme of their work. A fairly liberal grant to the master to be earned after inspection on the same system as is at present pursued, should be enough to carry the enterprise forward. The business must not be starved on the one hand, nor on the other need it prove so expensive as to be out of proportion to the good to be effected.

And yet after all it will doubtless be necessary to divert some substantial portion of the revenue to this object. New expenditure of money will seldom be popular. New or enhanced taxes may be entailed, or else a new application of some already appropriated fund will become unavoidable. Either one of these new alternatives must offend some section of the community; and it will probably be the financial objection, which will really, if not ostensibly, be the most damning to the project. That a new or enhanced tax should be introduced for this object, we regard as neither judicious nor possible; and it is to the second alternative that we are to turn, namely, the appropriation of some fund already assigned to an educational purpose. To pronounce with certainty upon this point must be hard for those to whom the details of our Revenue come only in published statistics, and who have no practical knowledge of the mysteries of our finance. The source however which we would indicate as being to some extent suitable for re-appropriation is the funds at present assigned to the propagation of Higher Education through the Presidency. This idea we believe to be in the minds of many, though it is not a fashionable one to openly put forward; for a large class would be directly affected by any increased cost in University education. Yet it may perhaps soon be worth our while to consider, whether in our eagerness to roof-in our perfect Temple of Knowledge, we are not in some sort restricting the content of its foundation.

We have indeed come now to a point in our educational history at which we can afford to stand and consider our achievements; and as

we do so, to us at least the question arises whether in our desire to produce a world of highly polished B. A's, we have not omitted to offer education in its simpler forms to a large section of their countrymen. We turn out annually a large number of individuals possessing a wide, if rather superficial culture, to man Vakii's tables and Government offices which already are overstocked. To this the list of applications for employment, on nominal salaries, kept in Government Offices, and the roll of High Court pleaders can testify fully, and applicants are learning by sad experience that the supply of their commodity is already in excess of the demand. Might we not at this point consider whether that supply could not be reduced with advantage, by spending less money upon its production—whether our degrees might not be a little more useful, if we made them a little more expensive to obtain? We would remind our readers that we have already done much for this class by founding colleges and an expensive university. Their merits have by now, if they will ever, commended themselves to a sufficient number of students. Higher education has for many years been liberally assisted. Can it not now stand alone, and money be set free in this way for expenditure upon another object for which it is at least as urgently needed?

The above points have been of necessity shortly set out, and they may be summarised at still less length. By conditions beyond our control one class has been excluded completely from the benefits of State aided education. The condition of that class needs, and we hope will receive speedily attention. No measure however can be in any degree permanently successful which is not preceded by some scheme of Primary education that will hasten the development of the Pariah's capacity. The scheme of such education is ready, nor need the funds for its support be wanting, and with so much in its favour, we commend the scheme to the consideration of our readers.

[Since we received the M.S. of the above article, a correspondent has written to the *Times*, giving the gratifying news that Mr. Tremenhoe, the able and energetic Collector of Chingleput, is considering the best way of placing education within the easy reach of the lowest class which forms the bulk of the labouring community in the district. The Assistant Inspector of Schools lately furnished the Collector with statistics which showed that while there are 42 schools maintained by Missionary Societies for the education of pariah children, and seven by indigenous private agencies, there was not a single school started or maintained by any of the Local Boards for the benefit of that much neglected class. The Collector intends placing the report of the Inspector, with his own views thereon, before the Government. We sincerely trust that the Government will speedily come to the assistance of the pariah, and we sincerely regret that so good a friend of the pariah, as Mr. Tremenhoe has proved himself to be, is about to go on leave on account of ill-health.—EDITOR, *M. J. E.*]

GENESIS OF THE HOOD.

If it can be said with truth of modern ecclesiastical vestments that they are survivals of the customary dress of a bygone age, the same is true of the academical hood which is derived through an ecclesiastical medium. The academic gown and hood which were originally of one piece are the lineal descendants of the monk's habit and cowl. The cowl or *cucullus* itself was not a monkish invention, having been a familiar item of clothing in the Augustan Era of the Roman Empire. Mention of the *cucullus* is not infrequent in Latin authors. An epigram of Martial (xiv. 132) runs:

*Si possem, totas cuperem misisse lacernas,
Nunc tantum capiti munera mitto tuo.*

This we may translate 'Had I been able, I should have liked to send you a complete cloak: as it is, I am sending a present for your head only,' i.e., a cowl. This neat epigram no doubt delicately insinuates—Hide your diminished head: but I cite it merely to show that the cowl was not necessarily, though usually, of one piece with the *lacerna*. In its origin the hood is merely an attachment to a garment for out-door wear, and intended to protect the head from cold and rain when required. Such garments were worn commonly by people whose occupations exposed them to the weather, but they were also found convenient for use by others when out at night, and served to conceal the features (Juv: vi. 117, 330; viii. 145). The cowl was adopted by the monastic orders at least as early as the time of Jerome, and in the ninth century laymen, and even other ecclesiastics were forbidden to wear the cowl or hood, the use of which was, by Conciliar decrees, restricted to monks. The regulation size of the cowl was at about the same period fixed at two cubits.

The Benedictine Rule permitted monks to have two cowls, a light one for summer wear, and a thick one for winter wear, and no monk might come to assembly or Divine service without his hood.

Through the influence of monks and friars, the single garment of gown and hood became the ordinary dress of University residents, and the sumptuary laws of the universities which regulated their material, shape and colour, have perpetuated the use of gowns and

hoods as distinctive badges of academic rank, although they have long since passed out of use as ordinary garments. The ecclesiastical origin of the modern University Hood is further illustrated by the 58th Canon of the Church of England which directs graduate clergymen to wear over their surplices the hood proper to their degrees. The same Canon permits non-graduates to wear 'some decent Tippet' (*hiripipia*): but the 'decent Tippet' may not be of silk material.

To wear a hood suspended round the neck by a string, without any regard to its proper use, in any case savours somewhat of the ridiculous: but this is the veriest trifle in comparison with the absurdity of adopting gown or hood in an University which has had no connection with the Christian Church, and in a land where they have never been worn as ordinary articles of attire. What an extraordinary absence of a sense of the fitness of things, and of a power of adaptation to circumstances, this incongruity betokens!

True is the saying, All hoods make not monks, or, as the proverb now usually runs, 'Tis not the cowl that makes the monk: and surely there is room in this land for a similar proverb, 'Tis not the hood that makes the graduate. If this can become a Tamil Proverb there will be some prospect of hoods ceasing to be the striking impropriety, which they at present are. If the genius of the people and language does not rebel against hoods, gowns, B.A.'s *et hoc genus omne*, it is not for the flattered foreigner to object.

A. WESTCOTT.

LITERARY ACTIVITY IN INDIA FROM A NATIVE POINT OF VIEW.

Ancient India was in no way behind the Western world in her intellectual wealth. In point of fact, her civilization dates from a time when most of the nations of Europe were untutored savages dwelling in caves and in huts, feeding upon acorns, or maintaining themselves by hunting and fishing. The Vedas, with their beautiful hymns breathing the pure and devotional spirit of the Aryans, have claims to be considered the oldest literary document in existence. In philosophy, in the drama, in poetry, Indian minds attained a high state of perfection. Kalidasa and Bhayabuti, Buddha and

Kapila, and the other great names in literature and philosophy, indicate the ancient greatness of India. If we dwell with pride and satisfaction on the illustrious minds of yore, it is only to stimulate the present, to advance upon the past, to induce Modern India to start upon a career of intellectual conquest and glory.

• • That at the present day original literary effort is rare in this country, is acknowledged by all who have studied the question with some attention. The abnormal activity that has followed upon the intellectual emancipation of India is chiefly absorbed by politics. The National Congress and the country political platforms attract to themselves much of the rising talent of the educated party. Every schoolboy, fascinated with the glittering rhetoric of a Lal Mohun Ghose or of Surendra Nath Bannerjee, is a democrat. Every collegian who knows anything of the Congress meetings is an enthusiast for elective councils. The average student in the metropolis and the large cities is nothing if not a Congress-wallah. Babu Surendra Nath is his idol, the object of his intense and fervid worship. We are far indeed from saying that politics do not deserve earnest study, on the contrary we trust we appreciate them at their full value. But we must confess we see a growing tendency to regard political institutions as an end in themselves, not as a means. Popular forms of government are useful not from their intrinsic value, but as conducing to the temporal happiness of the people. When once this great truth is lost sight of, errors of the worst type arise. We also observe a tendency to overrate the value of political study and to consider politics the end and aim of existence. Literature, science and philosophy are neglected so that the mental culture, the refined taste, and the pure pleasure that may be derived from such studies are entirely lost.

This aspect of the question is a serious one, and deserves the earnest attention of all who watch with loving care the destinies of a great people. That at present the field of literature remains fallow and uncultivated, the returns prepared by the registrars of books amply prove. India has yet to produce the man who will attract the gaze of nations by the splendour of his genius and the living prophet-like inspiration of his thoughts. The literature of Modern India is generally devoid of striking originality and noble imagination. It is a sad fact that our educated men are not animated by that lofty desire for knowledge, that patient and close

investigation into historical and antiquarian subjects, and that burning love for science, which alone can make India a great nation. In the language of Dr. Duncan most of them seem to think "that the graduation ceremonial is the crowning edifice of knowledge." The degree secured, the full-fledged graduate directs all his efforts towards securing the post of a Clerk or an Accountant in the public Courts. If he fail in this, he perhaps takes (after some years of hard study) a degree in Law and enrolls himself as a *Vakil*, and henceforth his books are less to him than ever. These books are mostly the text-books he had got up for passing his examinations, and they repose undisturbed in some corner of the house, furnishing a rich feast to moths and white-ants. Meanwhile all that he does in the way of literary reading is a hasty glance over the daily newspaper or a perusal of sensational novels, whose tone of morality, to say the least, is not high. Mr. V. Krishnama Chariar, speaking at Pachaiyappa's College, severely commented on "the enormous number of cheap but pernicious trash that seems to find favour in Madras, under the name of Reynold's Series." A remarkable commentary on this statement is found in the fact that a native publisher has found so great a demand for these works, that he is publishing them in the shape of monthly serials known as the *Magazine of Tales*. The first book of the series is G. W. M. Reynold's *Mysteries of the Court of London*—a work the nature of which it is hardly necessary to characterise. The rest of the graduate's time is devoted to idle gossip, card-playing (a kind of recreation highly in vogue), or political discussion. Beyond this monotonous round of existence the native graduate rarely extends his vision, and all matters of literary and scientific importance are absolutely uninteresting to him. What good can come out of this "indifferentism" of spirit, this dull langour of the mind?

Perhaps, the reader may ask, "Surely native Indian teachers and professors, at least, do not come under the above description." But alas! they too are open to the same charge. Go and but observe the dull way in which they communicate knowledge, the narrowness of their view, and the want of anything like enthusiasm in their work. You will at once pronounce that an Arnold or a Freeman are men produced out of different—far different—material! These are not the men who develop the young intellect, and awaken in the ardent, impressionable minds of students a love for

whatsoever thing that is lovely, that is noble, or that is of good report. Selfish and indifferent themselves, the students are trained up little better; and no wonder that we perceive a lack of that eager desire for knowledge which surmounts every obstacle, and conquers every difficulty. All the literary productions of Indian teachers are notes, annotations, keys, handbooks, and such like, mere "cribs" to assist students in passing their numerous examinations. Such productions require no original research, no hard thinking, are quickly compiled, and in a land where examinations are the order of the day, "pay" well. But to expect original historical works, or scientific discoveries, is to expect the sands of an Arabian desert to produce springs of sweet water.

Generally speaking, the average Indian student displays no laudable desire for acquiring information, or a love for knowledge as knowledge, apart from the pecuniary value of education. All his work consists in getting up for his examination—in a slovenly and superficial way—a good amount of matter which is painfully disgorged at the time of trial and soon forgotten. But nothing out of the curriculum is in any way interesting to him. Private reading, so delightful and useful a way of employing his leisure hours, presents no charms for him. He thinks that such reading constitutes a waste of time, and that he could better spend the half-an-hour that he could spare in "cramming" up some "compendium" of his History or Mathematical text-book. If a student is tempted by the exhortation of his European Professor to take up a novel of Kingsley or of Scott, he soon casts it away with a sigh of disgust. Of that high and noble converse with the mighty minds of old he can know nothing.

When such is the case it is vain to look for any great intellectual activity among the natives of the country. Works of fiction, travel, and adventure are not produced at all. When Mr. Chandu Menon wrote his Malayalam novel of "Induleka," all the Madras papers hailed it as a phenomenal literary effort. The best domestic tale produced in the Madras Presidency during recent years is perhaps the charming "Saguna" contributed to the *Christian College Magazine*. But it is only an oasis in a desert. The vernacular novels are mostly reprints of old publications, and when they are original deliberately stoop to the unclean. There is no refined or noble love, but all treat of the baser parts of human nature. It

will be merely wearying the reader to go on pointing out the defects of the present-day literature of Modern India.

To remedy this lamentable neglect into which literature has fallen, it is necessary, at the outset, to create sound literary tastes among the youth of the land. Examinations ought not to be the end and aim of the student's existence. A more liberal culture should be imparted, and a desire for knowledge for its own sake ought to be created. To quote from the eloquent Convocation address of Dr. Duncan: "The only way to preserve the knowledge and culture you have acquired is to endeavour to deepen, extend, and apply the one, and to perfect the other." How often is the bright promise of youth obscured long before middle age! The greatest happiness of the teacher is day by day to watch the expansion of the faculties and capacities of his pupil, and to forecast that brilliant future when those powers shall have reached maturity. Sometimes, alas! it is his most poignant sorrow to see the eager questioning spirit settle down into slothful acquiescence, the keen edge of the subtle intellect become blunted, the high aspirations of youth, with clipped wings, sink into the stagnant waters of dreary commonplace. Let not your teachers say: "Surely we have laboured in vain. If you have acquired any love for books, bear in mind that that love will give place first to indifference, and then to distaste, unless it be sedulously cultivated. If you have gained any insight into the wonderful works of Nature, do not lull yourselves to sleep by the easy-going reflection that all you have to do in future is to hold fast what you now possess. Unless you earnestly extend and cherish your acquaintance with, and love for, Nature, depend upon it she will in time become a sealed book to you. If you have acquired any power of sustained flight in the rarefied atmosphere of speculative philosophy, do not imagine that you will be able to maintain the power of living in these higher regions of thought unless ever and anon you give yourselves up to lofty meditation, and leaving sordid cares behind, live

"In thoughts sublime that pierce the night like stars."

EDUCATION OF EURASIANS.

During the year 1889-90 there was a very small increase in the number of Eurasian pupils in the Madras Presidency, and in Art. Colleges the numbers rose from 37 to 45. The increase, though a very small one, is encouraging, and it is to be hoped that in a few years the educational condition of the community will have considerably improved. There is no doubt that this community has many disadvantages to contend against, but it is not to be denied that it is within the power of the community itself to improve its educational condition, and thus to improve its social condition also. There have been many Eurasians of Madras who by their integrity, perseverance and intelligence have raised themselves to very high positions in life, and some of them from very humble and poor beginnings have attained to positions of trust and influence; but these have risen through their own hard work—work which lasted as long as their lives lasted.

One cause of failure in life among many Eurasians may be attributed to the half-education they have received. Eurasian boys, as a rule, do not go on further than their Matriculation. In some cases, perhaps, this is due to want of means, but in most cases to a desire on the part of the student to get employment—a very good desire, but very often arising from wrong motives and a silly idea of becoming independent. The result is that very frequently a boy is thrown on the world to fight the hard battle of life, without first being trained to meet its difficulties and to contend against its hardships. It may be pointed out that this early seeking of employment is sometimes due to pressure and hard treatment at school, but most frequently to want of home discipline. Another evil arising from this is the wrong choice of a profession. The boy's desire is to leave school, and the first employment he hears of, he takes up. The work may not be disagreeable, but to succeed in life it is necessary that his life should be bound up with his work—his work must interest and even entertain him. It often happens that a young man after a few years' service is quite disgusted with his work; he "sends in his resignation" with no fixed intention as to what he will do, but very frequently to loaf and sponge on his too indulgent

father, and sometimes to take up some other appointment equally disagreeable. Another cause of failure is the practice of marrying early in life. Young men very frequently before they are twenty-five years of age take unto themselves wives, with perhaps the means to support them. But how frequently does the family of two increase rapidly while the means for the support of the family do not increase; or, if they do increase, the increase is not sufficient to meet the demands caused by sickness, &c. Very soon the man gets accustomed to his surroundings, and is content to go on and make the best of a bad bargain, with no intention of improving the condition of himself or that of those around him. I have stated that there is a want of home discipline in the families of Eurasians. The head-masters of the two largest public schools in Madras publicly complain that very little attention seemed to be given to the work done by the boys; and parents, except from the information they get from school in returns and reports, are in perfect ignorance of the progress of their children at school. There are undoubtedly many well conducted households, and from these we generally get our best boys. But to improve the social well-being of Eurasians, it will be first necessary to improve Eurasian home life generally. Another cause of failure is the low estimation in which Industrial Education is held. A glance at the Report on Public Instruction (1889-1890) will show that very few (about 170 pupils) have some kind of Industrial Education. Parents think it beneath them to have their children learn a trade, and many mothers would feel insulted at the idea of anyone proposing millinery as very suitable for their unmarried daughters. Of course time will remove this prejudice, but the establishments of a few industrial schools on improved and sound principles will do much to improve the condition of the Eurasians.

These are some of the causes of failure, and we have seen how some of them may be remedied. Most of them would be overcome if the home life of the Eurasian could be improved. If parents would consider that the welfare of their children depended much on the discipline enforced at home, and if they used the means at their command to direct the wills and intelligence of the children into a proper channel, there is no doubt that the desire for a higher education would be aroused, and with a better education there could be little chance of choosing a wrong

profession. Hitherto much attention has been given to the study of Latin in our schools, but the knowledge displayed by many of our boys in this subject tends to show that time and attention have been wasted. The teaching of Tamil in our lowest classes is much more to be desired, and to have Tamil taught successfully we must have Eurasian Tamil masters. Native Tamil teachers have failed to succeed with our boys. They do not seem to enforce good discipline, so that even those who wish to learn cannot do so on account of those who are indifferent. Eurasian Tamil teachers besides having discipline, would also sympathize with our boys and would quite understand their errors and correct them. As stated above the establishment of Industrial schools would also improve the prospects of the Eurasian community. The principles and plans on which such schools may be worked will be dealt with in a future paper.

H. W. S. C.

THE MADRAS COLLEGE OF ENGINEERING.

The Madras Civil Engineering College was established in 1859; and in 1862, a college department was added with the express object of training students for the posts of Assistant Engineers in the Public Works Department. The Cooper's Hill College was established in 1871, to supplement Indian Colleges, and supply the wants of the department as there was not a sufficient number of men passing from the Indian Colleges. Circumstances have now changed. The Madras College every year turns out more men than are actually required for the department; the education given is more than enough for the requirements of an Assistant Engineer. But the Cooper's Hill College monopolizes nearly all the vacancies, and the local college is but little encouraged. A Government of India Resolution of 1882 guaranteed one appointment as Assistant Engineer to the first passed student of 1885 as well as of 1886, and subsequently repeated the guarantee every year, thus causing an increase in the strength of the College department. This guarantee has incidentally been the cause of sore disappointment to those who fail to hold the first place, a disappointment felt in a greater degree owing to the Government not giving these latter even such inferior situations as those of supervisors and overseers; these are practically reserved for the military students.

As regards the Engineer appointments there are annually on an average about 4 vacancies; of these only one is given to the students of

the Madras College, and the rest are filled up by Europeans fresh from the Cooper's Hill College. The few Madras B.C.E's who have been made Assistant Engineers have been doing satisfactory work, and three of them have been promoted to the Executive Engineer's grade. Every year a number of European Engineers are brought in from the Cooper's Hill College. This institution the Indians are obliged to maintain to the detriment of their own people. The standard of education there does not appear to be much higher than here, and even if higher the Indian student is quite willing to answer the same papers if the examinations are held simultaneously in England and India, and if the appointments are given away in order of merit whether the candidate be a European or an Indian.

At the Roorkee College four and three appointments alternately are given to the students who pass out of the College; and in Bombay two and one are alternately reserved for students of the Poona College of science. The students who do not get the Assistant Engineerships are appointed supervisors and overseers, 1st grade, both in Bengal and Bombay. But in Madras they get appointed as temporary overseers, 3rd grade, the lowest in the department; and most of them have to go without any appointment at all.

To make matters worse a recent order of the Government has distinctly stated that the A.C.E's and B.C.E's of the College who are still on the temporary establishment cannot in future expect to be made permanent, as the permanent vacancies are reserved for the students of the Engineer Subordinates' Class at the rate of three annually. Is the second student of a particular batch of A.C.E's who failed by want of a few marks to secure the guaranteed appointment, and that in some cases by pure chance, not to be considered equal to the third student of the Engineer Subordinates' Class? So long as the college can supply the required number of overseers from among its A.C.E's and B.C.E's, it passes all comprehension why preference should be given to students of the Engineer Subordinates' Class who are from every point of view admittedly inferior. The authorities are perhaps of opinion that to keep the Engineer Subordinates' Class going it is necessary to guarantee overseerships to the first three in that class. It does not seem to have struck them that it is imperative to make the most costly class in the college—the B.C.E. class—attractive, at any rate not less attractive than the subordinates' class. As matters at present stand, the student risks much less by joining the subordinates' class than by joining the Engineers' Class.

TIME-TABLES.

A time-table is a written statement of the work actually done in a school. It shows what is being done by each class, the order in which the lessons are done, and the time devoted to each lesson per week. A carefully arranged time-table is an essential part of the machinery of a school and invaluable in the working of it. The time-table is a distinct plan on which the work is carried out, and a great deal more work can be turned out when there is such a plan before the mind than when there is none, and when pieces of work are chosen in a hap-hazard and desultory way. A time-table thus prevents a large waste of time which must be the inevitable result if a teacher, having performed his work for a certain hour, has immediately to think and decide what is to come next, not to speak of the trouble and confusion which always ensue at the change of lessons and the consequent annoyance and anxiety to the teacher. Next, a time-table secures that no subject of the school curriculum is neglected, and distributes the work in such a manner that the faculties of the children are exercised in a proper manner. No lesson is permitted to come in at a wrong place and time, and as much time is allowed to the different subjects as the importance and difficulty of mastery demand. The time-table confines attention to one thing at a time and bends the energies of both the teacher and the pupils to the task before them. It acts as a check to the tendency in some teachers to teach their favourite subjects to the entire or partial exclusion of others. No lesson should be stretched beyond the receiving capacities of the pupils to whom it is addressed, and it is labour thrown away to attempt to do the same lesson for two or three hours together. Sometimes a teacher falls into the delusive satisfaction that he has performed his duty to the pupils by going over a large portion of the task to be performed without taking into consideration the continuous demand a lengthy lesson makes. But going over a certain ground is not the point in teaching, but the reception and assimilation of the various points that have been placed before the pupils. The time-table, after great deliberation, is framed fixing that a certain amount of work shall be done within a given period. This requires conscientious use of the time for the lesson, and prevents the teacher from indulging in those undue digressions which are generally the result of the teacher's attempts at overdoing things. The aggregate time given to a certain subject is determined by the number of working hours, by the quantity required to be performed, and by the relative importance and difficulty of the subject. In respect of discipline and moral influence the time-table produces very beneficial results. The

work of the school is arranged in such a manner that there is a distribution of the noise of the school, so that the work of one class may not disturb that of another; and sufficient separation of classes is provided for, so that there may be no distracting causes in the work of the different classes. Thus violations of discipline are prevented in a great measure, causes of diligence promoted, and punishment in the school is at the minimum. The pupils become alive to the importance of order, punctuality, and other qualities which are of lifelong value.

A few of the advantages of a well-arranged time-table having been pointed out, it is well to mention a few general points which are of importance in drawing up a time-table. It is very important that provision should be made in every school for the teaching of all the subjects required by the rules of the Educational Department. It is open to the teacher to introduce additional subjects suited to the requirements of the particular place where the school is located or to include in the time-table a few subjects which, in his opinion, are preparatory to the regular taking up and intelligent grasp by the pupils of the department subjects. At any rate, in schools in which the boys are not sufficiently advanced in years and in ability to be able to look to their subjects without help and guidance from the teacher, it is of first importance to see that proper arrangements are made for the teaching of all the subjects of the Code. The other points that ought to be remembered are the time appointed for the lessons and the duration of the lessons. Lessons that require much mental effort should come early, soon after the school begins, that is, whilst the children are fresh and capable of displaying that concentration which those exacting lessons demand. If, soon after the school begins, important and difficult lessons are taken up, the pupils, unwilling to miss them, are induced to be punctual in attendance. The best energies of the teacher and of the pupils ought to be utilized while they are in a condition fit for applying them to the lessons. From the fact that boys are fresher in the morning than in the afternoon, it follows that the lessons should be so selected that less demand is made on their powers during the latter hours of the school-day. Two difficult lessons, for the reason that they are difficult, are not to be supposed unsuitable to follow each other. There are cases where such a sequence is unavoidable. The framer of the time-table should only take care to see that the same or cognate set of faculties is not exercised for an inordinate length of time, and that easy lessons alternate as far as possible with difficult ones, so that there may be relief in the strain of the intellect. With regard to the duration of the lessons it has previously been remarked that the duration should always be made to depend on the receptive power of the pupils,

and that it should not be so long as to weary either the teacher or the pupils. This consideration should not lead to the duration of the lessons being made too short, for then the hour will be over before the lesson is concluded and the pupils have fully entered into the lesson. Of course little children require frequent change of lessons, and as they are not so capable of continued attention as the more grown up boys, their lessons should be of comparatively short duration. The third point is the distribution of teachers over the different classes of the school. It is very desirable that lower classes should have as little change of teachers as possible. To entrust a class solely to one teacher making him responsible for the entire progress of the boys committed to his care, tends to give that unity of discipline and instruction which little children so much need. The exclusive charge of a class to a single teacher will lead to very beneficial results even in higher classes. But it is not always possible to find teachers of all-round ability, so that a distribution of subjects becomes necessary, and that teacher is put on that work which he excels in, or has fitness for. No doubt this specializing tendency is good in some respects. The last point that should be considered is the apportionment of work to the head-master. As a rule he will be engaged in the teaching of the most advanced classes of the school and in lessons that require great skill in handling. This should not throw too much of teaching work on him, and he should be free for some hours that he may attend to the work of superintendence, examination, and other details of school-keeping.

DR. FITCH ON THE WORKING OF THE FREE SCHOOL SYSTEM IN AMERICA, FRANCE AND BELGIUM.

(Continued from our last.)

The general conditions of the educational problem in Canada are as follows:—The conditions under which primary education is controlled and maintained in the provinces of British North America differ almost as widely as those which exist in the several States of the American Union. Each province has its own laws and its own educational system, raises its own funds, and appoints all its own officers. The Dominion Parliament makes no grant, and exercises no authority over the several provinces in the matter of education. The diversities of law and practice extend not only to the mode of raising revenue and levying fees, but also to the means by which attendance is secured, and to the character of the religious instruction. In all the provinces the schools are free, the funds being provided from local taxes and from grants made by the provincial legislature. But private schools and

antagonistic voluntary schools are almost unknown, as Episcopalians, Presbyterians, Methodists and Baptists are agreed in the desire for Biblical instruction. But no one of these bodies evinces any strong wish to use the public school as a *propaganda* for the extension of its own denominational influence. Hence there is not in the Dominion, as there is in the United States, any inducement for private persons or for the churches to set up rival schools. Such schools, in fact, can scarcely be said to exist at all, and throughout Canada the public school system may be safely described as acceptable to all classes, and co-extensive with the wants of the whole population.

Then follows a very readable, succinct and instructive account of the educational system in France. The highly organised system of public instruction in France is productive of the highest result. The system embraces all grades of education and are all co-ordinated under the direction of the Minister of Public Instruction. But it has happened in France, as in the United States of America, that the complete secularisation of the public schools has had the effect of arousing the hostility of the Roman and other churches, and has caused a large number of schools and scholars to be completely detached from the public school system, and taught independently. The truth is that the *instruction civique et morale*, the lessons on patriotism, on industry, on self help, and on respect for law, which are so skilfully and methodically formulated in the official text-books, do not satisfy the ethical requirements of the religious bodies, and practically have the effect of alienating those bodies and bringing rival schools into existence. It must not, however, be concluded that the State exercises no control whatever over the private or church schools. In America, as we have seen, such schools are absolutely detached from the public school system. The State disclaims all responsibility for them, and neither requires the teachers to furnish any evidence of fitness nor subjects the scholars to any test of their acquirements. In France, however, the principal teacher of every school, private or public, must possess some attestation of competency to teach, although the full "*certificat d'aptitude pédagogique*" is not exacted in all cases, and, in fact, is not possessed by more than three-fourths of the teachers. All schools are subject to the visitation of the local inspector, so far as the sanitary condition of the premises is concerned. In a general way also the inspector may report on the conduct of the children. Moreover, all scholars, of private and of public schools alike, have the same right to present themselves to the local authority at the end of their school course as candidates for the *certificat d'études*, or leaving certificate, to which I am to refer subsequently. But in regard to all else, the scheme of instruction, the choice of books, the moral and religious supervision, and the appointment and dismissal of teachers, the private schools are entirely under the management of the various congregational bodies, who must provide them at their own cost and that of the parents, seeing that no aid is obtainable for them from public funds.

But in both the State schools and the Private and Voluntary schools the rate of regular attendance is very high. Dr. Fitch very properly attributes

this not in the first place to the existence of a compulsory law, but to the fact that education in France has been a matter of national concern for several generations, and that there is in France a longer tradition among the working classes in favour of education for their children. But besides these general conditions, which affect the social life and the public sentiment of the French people, there are three or four auxiliary devices by which the law is strengthened, each of which is in its own way helpful in securing a high standard of regular attendance. They are the *livret scolaire*, the *caisse d'école*, the *écoles primaires supérieures*, and the *certificat d'études*. In Paris the municipality has introduced the plan of sending to the parents every fortnight a statement showing the classes which the scholar has attended, the occasions on which he has failed to attend, and a note as to his conduct. This is contained in the scholars' attendance book, or the *livret scolaire*. It has a pronounced effect on the regularity of the attendance.

The School Aid Fund or the *caisse d'école* was first started in 1849 by a voluntary association in Paris, in order to facilitate attendance by offering prizes for punctuality and diligence, and by giving such help to the most indigent parents as might enable their children to attend. In close connexion with these committees are the dispensaries and the *cantines scolaires*, in which midday meals are provided at 15 cents, or three halfpence per head, for those whose parents desire to avail themselves of the privilege, and gratuitously for those who have received the committee's special order. The school saving banks (*caisse d'épargne scolaire*), which is a very popular French institution, is managed largely by the same committee.

The next inducement to regularity of attendance which Dr. Fitch notes is the existence of a class of schools (*écoles primaires supérieures*) which supplement the course of elementary instruction by providing education specially fitted for the skilled artisan or merchant's clerk. No scholars are admissible to them who have not passed successfully through the ordinary primary school course, and obtained the leaving certificate.

The leaving certificate or *certificat d'études* granted after examination is in Dr. Fitch's estimation, the most potent instrument in maintaining a high standard of School attendance in France. Admittance to higher or technical schools is impossible without this certificate, and employers universally give preference to those who possess it. Just as Dr. Fitch thinks this device for securing a high average attendance might well be adapted to the needs of England, so we think that not only this, but all the other devices we have mentioned, are worthy of due consideration with a view to introducing some or all of them, with due adaptations, into our educational system in India.

There is nothing which calls for special comment in the Belgian system of education. As in France and America, so in Belgium, there is a large number of schools which exist independently of the State schools, and for similar reasons.

In conclusion Dr. Fitch shows clearly that the universal remission of fees helps to remove one of the hindrances to regular attendance, but needs to be

supplemented by other measures, if school attendance is to be raised to a high level. He further shows that the free system has a tendency to become a purely secular system, and is responsible for creating a rival system outside of the public school organization. His closing words are: 'It would be well high impossible, or at least unsafe, to deduce from these facts any general inference such as would be necessarily applicable to all countries, and in all circumstances.' Each nation must in fact solve its own problems, in its own way, and in view of the special circumstances, the *temps*, the past history, and present needs of its people. Whether a given system of public instruction is or is not adapted for imitation, or for transplantation from one soil to another depends upon many conditions, among which not the least are the feelings and wishes of parents, their religious convictions, the extent to which employers are willing to co-operate with school authorities and with the administrators of the law, and the estimate formed by the whole community of the value of a good education, and of the price it is worth while to pay for it.

We strongly recommend this Memorandum to the notice of the Director of Public Instruction, with the hope that a copy of it may be placed in every college library throughout the Presidency. Together with Dr. Fitch's Notes on American Schools and Colleges, it might well be selected as a subject of study for the L. T. Degree.

UPPER SECONDARY OPTIONAL SUBJECTS.

Candidates for the Upper Secondary Examination have to pass in three optional subjects to be selected from a list of 29 subjects.

Nos. 1 to 10 are mathematical and engineering subjects that may be taught by a B.C.E., or an A.C.E., or a passed student of the Engineer subordinates' class. No. 1, mathematics, No. 2, practical geometry, and No. 3, mensuration, may be taught by a mathematics graduate. All the students of the Teachers' College are prepared for the Higher Examination in two technical subjects; such of them as pass in 3, mensuration, and 7, surveying, may be engaged to teach those two subjects. The opening of a class in surveying implies an initial expenditure of Rs. 500 on surveying and levelling instruments and of a table for each student at Rs. 5 each. In the case of mensuration, Rs. 50 will have to be spent on mensuration models and Rs. 10 on books. A plan-drawing class of 10 students will require Rs. 50 for ten tables and Rs. 25 for books and instruments. An outlay of Rs. 25 will suffice for opening classes in any one of the other subjects, Nos. 1 to 10.

Students of the practical geometry class must purchase instruments for Rs. 7, those of the surveying class for Rs. 12, and of the

plan-drawing class for Rs. 12. The optional mathematics syllabus covers nearly the same ground as the F. A. mathematics; a study of this optional subject will therefore be helpful to the study of compulsory Branch III. Upper Secondary candidates desirous of entering the Revenue Department are required to pass in mensuration or surveying. A knowledge of Arithmetic, Algebra and Geometry is required for the study of these two subjects.

Nos. 11 to 13 are subjects that may be taught by science graduates. No. 12, inorganic chemistry, may also be taught by such students of the Teachers' College as pass in chemistry while under training. Nos. 12 and 13 may be taught by passed students of the Agricultural College. The opening of a class in No. 11, heat and light, or No. 12, chemistry, will require an outlay of Rs. 250 on apparatus. The chemistry syllabus is nearly the same as that prescribed for physics graduates. A class in No. 13, Physiography, may be opened at very little cost.

Nos. 14 to 19 may be taught by students of the Agricultural College, with the exception of general biology. No. 15, Animal Physiology, No. 16, general biology, and No. 18, Botany, may be taught by a biology graduate. The opening of a class in any of these six subjects will entail heavy expenditure. A class in agriculture will require a farm, besides stock and implements. The richer schools in the mofussil will do well to open classes in agriculture and allied subjects and engage diploma-holders of the Agricultural College, as the spread of a knowledge of scientific agriculture is very desirable.

Nos. 20 to 24 are subjects for the teaching of which, masters must be sent to Madras to get trained in these subjects. No. 20, Hygiene, is of much practical utility, and may be taught by the local medical officer; or the school manager may send one of his teachers to the Medical College for a year. It will be well if the Council of the Victoria Technical Institute offer scholarships to teachers desirous of learning Hygiene. Scholarships are offered by the Institute to F.A.'s and B.A.'s desirous of attending the School of Arts for learning drawing and modelling. Very few have availed themselves of this privilege; hence the supply of good drawing-masters is poor. If matriculates are offered a monthly scholarship of Rs. 15 by the Technical Institute for learning drawing and allied subjects at the School of Arts, the supply of drawing masters will increase, and

drawing be introduced largely in the mofussil. Engraving and printing classes are likely to be introduced only in Industrial Schools; a printing class requires the maintaining of a press.

Nos. 25 to 29 are commercial subjects, for the teaching of which the master must have passed the higher examinations in those subjects. Such students of the Teachers' College as have passed in Book-keeping and Correspondence may be engaged to teach them. Holders of the Technical Institute scholarships are competent to teach Book-keeping, Correspondence and Banking. These three are allied subjects, a knowledge of all the three subjects being necessary for the successful teaching of any one of them. Very few phonography teachers are at present available, no arrangements having been made for creating a supply of such teachers. The Victoria Technical Institute ought to take steps for creating a supply of phonography teachers. Book-keeping and phonography classes require an outlay of Rs. 15 or 20. on books, and classes in the other three commercial subjects require about Rs. 30 for books.

Book-keeping is the art of keeping accounts, a knowledge of which is desirable in every office, Government or private. It makes the student quick at figures. Candidates for employment in the Sea-customs, Marine, Stamp and Forest departments are required to pass in Book-keeping. This subject requires a knowledge of Arithmetic and may be begun in the 4th Form. No. 28, Correspondence, requires a good knowledge of English as one of the two papers on this subject is on drafting mercantile letters; Upper Secondary students are advised to appear in this subject, when in the 6th Form. This subject, besides specially fitting candidates for employment in mercantile houses, fits them for the duties of the indexing, docketing and despatching clerks in all offices; the knowledge of the Negotiable Instruments, Stamp and Companies' Acts, required by this syllabus, will fit them for the Registration Department, and for the offices of vakils and attorneys. It is very desirable that a knowledge of Banking should be diffused among the student-population; so that, when they become men, they may support movements for the establishment of district banks. But the present syllabus is too high for upper secondary classes, including as it does a good portion of Mr. Fawcett's political economy. It is hoped that the

syllabus will soon be made simpler. The study of Annuities and Life Insurance requires a knowledge of optional subject, No. 1, mathematics. On the great utility of phonography or short-hand-writing, it is needless to expatiate. We shall make it the subject of a separate article.

• Under the Grant-in-aid Code, qualified teachers of technical subjects are entitled to a Government grant of 62½ per cent. in the case of the holders of 'ordinary' certificates and to a grant of 75 per cent. in the case of the holders of "normal" certificates. If the holder of a normal and a technical certificate is paid Rs. 60, and teaches 5 hours a week ordinary subjects and 15 hours technical subjects, he will receive a grant of ⅓rd on Rs. 15 (i.e., on ¼ of Rs. 60) and ⅔ths on Rs. 45 (i.e., on ⅓ of Rs. 60)—or in all Rs. 38½.

HISTORY OF EDUCATION IN THE MADRAS PRESIDENCY.

By S. SATTIANADHAN, M.A., LL.B., Cantab, Assistant to the Director of Public Instruction, Acting Professor of Philosophy, Presidency College.

I. EDUCATION IN MADRAS PRIOR TO 1854.

(Continued from our last.)

A Committee of Public Instruction (which was afterwards amalgamated with the College Board, and was termed the Board of Public Instruction) was organized to carry out Sir T. Munro's scheme. The functions of the Board were to inform themselves fully of the state of education, to concert measures to improve education and to direct and superintend public education. The first step taken by the Committee was to organize a school at Madras for the training of teachers. This institution supplied afterwards the basis of the Madras High School and ultimately developed into the Presidency College. In the Central Institution, which was under an English Headmaster assisted by Pundits, who were connected with the College Board, arrangements were made for training and educating forty students as teachers, these candidates being procured from the Districts in which they were expected to serve. Each student was assigned a stipend of Rupees fifteen per mensem. The selection of the students was left to the inhabitants of principal towns in each district. The Committee considered it important that the Collectorate schools should be first supplied with teachers, and hence did not entertain the plan of training teachers for the Tahsildaree school. Arrangements were made for teaching the Hindu students in the vernacular languages of the districts to which they belonged, and Muhammadans were taught Hindustani, Persian and Arabic. Provision was also made for the instruction of all the schools in the English language and "in the elements of the European Literature and Science." The Board in all their communications to

Government laid the greatest stress on securing the sympathy and co-operation of the people and were reluctant to bring forward any measures "at variance with the customs and prejudices of the people." In accordance with this policy the schools that were established were entirely under native superintendence. About 100 Tahsildaree and Collectorate Schools were eventually established. The study of English was confined only to the central Collectorate schools. In all the rest the instruction imparted was purely vernacular.

The Court of Directors fully approved of the enquiry set on foot by Sir T. Munro and the measures proposed and partially carried out by him, though they regretted that the Despatch of 1828. inquiry failed to elicit correct information as to the quality of instruction given in indigenous schools, the character of the books used in them, and "whether any desire exists among any portion of the natives for better instruction than what their own rude institutions of education afford, and how far they are disposed, or by what means they might easily be induced, to avail themselves of better schools, if any such should be established." The Court also clearly pointed out that the success of the Schools established depended wholly on the employment of qualified teachers and on securing for the schools efficient and vigilant supervision. "A general superintendence," observed the Honourable Court, "may be exercised at all times by the Collectors; but periodical examinations, conducted either by the local officers or by persons sent from the Presidency, would be the most effectual means of compelling the masters to do their duty, and of encouraging the pupils by opportunities of distinguishing themselves and of attracting the notice of Government.

Unfortunately these precautions were not heeded by the Board of Public Instruction, so strongly were they in favour of the non-interference principle. The consequence was rather disastrous, for in 1832 when a census of the Tahsildaree schools was taken it was found that each school had not more than an average of 33 scholars and the Board were compelled to admit that there was something radically wrong in the schools. The Board remarked:—"Either the teacher is not duly qualified for the office, or he is careless in the discharge of the duty belonging to it." But they had no hesitation in admitting that the schools had suffered owing to the lack of efficient supervision. A resolution was passed by Government calling upon the Collectors to exercise a more effectual supervision over the schools in their several Collectorates. But this resolution was ineffectual as the Collectors found it impossible to attend to schools in the midst of other and more pressing avocations of their office. Not only the Tahsildaree but the Collectorate schools proved a failure. The benefit derived from the schools was scarcely commensurate even with the moderate expense incurred. Just as the selection of the Tahsildaree teachers was left to the people themselves the selection of the Collectorate teachers was left to the Collectors, the object of the Board being to secure for these schools men with local influence, and

who were able to secure the confidence of the native public. The consequence was that men were selected for the post who had no special qualifications. The Board also saw the folly of entrusting the selection of teachers for training at the Central Institution in the hands of the native public. The men selected were inferior in every respect, and in 1832 the Board reported that none of the students that had entered since 1828 had attained the requisite qualification. Most of them on entering "were ignorant even of the character of their own native tongue and the greater number of them had arrived at too advanced an age." The class of Collectorate students, therefore, proved a most signal failure. The Central School in Madras therefore did not effect much even as regards the extension of elementary education.

In December 1830 the Court of Directors sent a very important Despatch to the Madras Government bringing to the notice of the latter the importance of providing for education of a higher order. In the Despatch the Court expressed their dissatisfaction at the measures adopted which had for their object only the extension of elementary education in the vernaculars and urged the necessity for promoting higher education. The enlightened policy of the Court is noteworthy. "The improvements in education," they observed, "which most effectually contribute to elevate the moral and intellectual condition of a people, are those which concern the education of the higher classes; of persons possessing leisure and influence over the minds of their countrymen. By raising the standard of instruction among these classes you would eventually produce a much greater and more beneficial change in the ideas and feelings of the community, than you can hope to produce by actually directing on the more numerous class." It must not be understood from this that the Court discouraged the education of the masses, what they wanted was to place within the reach of the higher class of natives, the highest instruction in the English language and in European literature and science, so as not only to improve the intellectual and moral condition of the people, but also to train a body of natives, qualified by their habits and acquirements, to take a larger share and occupy higher situations in the civil administration of the country. The Supreme Government had already adopted measures to effect this object and those measures had been attended with a great deal of success. The specific proposals made by the court were to enlarge the plan of the Central School so as to provide higher instruction in the English language and European science and eventually to establish English schools in the chief centres of the Presidency. Though strongly recommending the promotion of higher education, the court at the same time were fully alive to the impossibility of diffusing education through the masses by any other medium than that of the vernacular languages.*

* The following is an extract from a Despatch which was addressed to the Bengal Government on the same date on which they addressed the Madras Government:— "While we thus approve and sanction the measures which you propose for diffusing a knowledge of the English language and the study of European science through its medium, we must at the same time put you on your guard against a disposition, of which we perceive some traces in the General Committee, and still more in the local Committee of Delhi, to underrate the importance of what may be done to spread useful knowledge

The recommendations of the Court do not appear to have met with much favour at the hands of either the Local Government or of the Board of Public Instruction. Steps taken by the Board of Public Instruction. The difficulty of securing competent men was put forward as a serious hinderance to the adoption of the

measures of the Honorable Court and difficulties were also anticipated in the apathy of the native character and in their unwillingness to pursue their studies after having attained such an amount of knowledge as might qualify them for public employment. It was at the same time admitted that the desire of learning English had become very prevalent among all classes of the community. Four years elapsed before any definite measures were adopted and it was only in 1834 when the attention of the Board was again called upon by the Home authorities to the subject that steps were taken to give effect to the Despatch of 1830. The Board drew up an elaborate scheme. It was proposed (1) to remodel the Central School at the Presidency as a regular Normal Institution and place it under an English master; (2) to open a second English school at the Presidency under an English master; (3) to increase the number of Tahsildar schools; (4) to introduce an improved series of class books; (5) to establish a Provincial Board consisting of European officials, and native Gentlemen to supervise education in each district. The scheme, however, did not answer the chief object the Court of Directors had in view in as much as it did not provide for the instruction of candidates for employment in the various departments of the public service, in the higher branches of European literature and science.

The scheme of the Board was referred by the Government of Madras to the Government of Bengal for the opinion of the General Committee of Public Instruction in that Presidency. When the scheme was under reference the Government of India had under consideration a very important question affecting the educational policy throughout India. Previous to 1835 the course of instruction followed in the principal institutions in Bengal was entirely oriental.* "The principle

among the natives through the medium of books and oral instruction in their own languages. That more complete education, which is to commence by a thorough study of the English language, can be placed within the range of a very small proportion of the natives of India; but intelligent natives who have been thus educated, may, as teachers in Colleges and schools, or as the writers and translators of useful books, contribute in an eminent degree to the more general extension among their countrymen of a portion of the acquirements which they have themselves gained, and may communicate in some degree to the native literature and to the minds of the native community that improved spirit which, it is to be hoped, they will themselves have imbibed from the influence of European ideas and sentiments. You should cause it to be generally known, that every qualified native who will zealously devote himself to this task will be held in high honor by you; that every assistance and encouragement pecuniary or otherwise, which the case may require, will be liberally afforded; and that no service which it is in "the power of a native to render to the British Government, will be more highly acceptable."

* When Bishop Heber visited the Government College at Benares, he found a Professor teaching on Astronomy after the system of Ptolemy and Alhagazari and the majority of the scholars engaged in the study of Sanskrit Grammar, and on enquiry was informed that it had frequently been proposed to introduce an English Mathematical class and to teach the Newtonian and Copernican system of Astronomy, but that the project had been abandoned "partly on the plea that it would draw the boys off from their Sanskrit studies, and partly lest it should interfere with the religious prejudices of the Professors".

acted on was that of encouraging Native literature and science and engrafting on them such improvements and such an amount of useful knowledge as could be introduced consistently with "the necessity of consulting the feelings and conciliating the confidence of those, for whose advantage the measures of Government were designed." The educational funds were devoted chiefly to the support of oriental colleges, to the payment of stipends to the pupils who attended, to the publication of oriental works, both original and translations. The General Committee of Public Instruction in Calcutta were divided in their opinion as to the character of the instruction imparted in the Government schools and colleges—whether it should be oriental or European, and the resolution of Lord William Bentinck of the 7th March, 1835 finally set at rest the question in favour of the latter system. This is how the resolution runs:—"His Lordship in Council is of opinion that the great object of the British Government ought to be the promotion of European literature and science among the natives of India, and that all the funds appropriated for the purposes of education would be best employed on English education alone."

THE LATE MISS PRATT.

(DIED AT 4 A.M. SUNDAY, SEPTEMBER 13TH, AGED 29 YEARS.)

Of the many victims whom Cholera has lately claimed, no one has been more generally and justly lamented than the late Miss Pratt, the Superintendent of the Presidency Training School for Mistresses. The particulars of her death have been made public; but, perhaps, we may be able, through the information kindly supplied to us by her intimate friends, to add a few facts concerning her character and work, which may be a source of interest to those engaged in educational work, and possibly a source of comfort to her nearest relatives and friends.

The specific cause of the terrible attack under which she succumbed in so short a time is not known, but there can be no doubt that overwork and anxiety had for some time been predisposing her not-over-strong constitution to receive the fatal visitor, who was lurking close by in the neighbourhood. On the Friday preceding her death she experienced great fatigue in distributing a few prizes to some of the pupils of the school, and later on in the evening complained to some friends of a feeling of overwork, and prognosticated a serious illness of some kind or other. On Saturday morning, instead of resting, she busied herself in making arrangements for a lesson which a student was to give the same afternoon before the members of the Teachers' Association, and then drove out to visit an invalid friend, Miss Keely of Doveton College. On returning, she wrote a note to Mrs. Duncan, the wife of the Acting Director of Public Instruction, stating that she was not feeling well, but hoped to meet Mrs. Duncan as usual on the Sunday. She then took to bed, and twelve hours later, when day began to break on the Sunday, she passed away and 'had another morn than ours'. The news

of her death was a great shock to her many friends, and to none more than to Dr. and Mrs. Duncan. Just before the meeting of the Teachers' Association on Saturday afternoon, she expressed her great regret that she was unable to be present. At the close of the meeting some of the teachers went up to see her, but were denied admittance; but they little thought the illness would end as it did. Great as was the shock to Miss Pratt's friends in Madras, it must be truly terrible to her parents in England. Only the last mail before her death brought a letter from her mother expressing her desire to see her daughter again. It is needless to say that her relatives in England have our deepest sympathy. At the funeral, which took place the same day at 5 p.m., Archdeacon Elwes read the Service in an impressive manner. Among those present were Dr. and Mrs. Duncan, the Hon'ble Mr. Grose and Mrs. Grose, Dr. Oppert, Major Drake-Brockman, Revs. Ogilvie, Ellis, and J. S. Lawrence, Mr. and Mrs. Bilderbeck, Mr. and Mrs. Duchesne, Messrs. Moss, Patterson, Hall, Quinn, Bower, Bernard, Upshon, and Denham, the Misses Moss, Jupe, Parsons, Barnard, Patterson and Shumogam and a large number of students and pupils.

It was in March 1889 that Miss Pratt took over charge of the Presidency Training School from Miss Barnard, who was placed temporarily in charge after the appointment of Miss Carr, the former Superintendent, as Inspector of Girls' Schools. A correspondent writes:—"Miss Carr had been so popular amongst us that the arrival of her successor was not looked upon with pleasure. The great sorrow we now feel at the loss of her who succeeded bears testimony to the way in which she achieved a victory over prejudices and won our hearts." Miss Pratt told us when she came that she wished to be a friend to all the students, and this she proved herself to be to all with whom she came in contact, and particularly so to those who were at all in need of help of any kind. Finding when she came, that the organisation of the school was good, she did not interfere with it, but only from time to time introduced such improvements as were essential to the growing nature of the school. Miss Pratt was exceedingly anxious about the general knowledge which both students and pupils possessed. She tried her very utmost to encourage general reading by making repeated additions to the Library, and on one occasion, by awarding a prize to the girl who knew "Kenilworth" best. Very lately, she allowed the students and pupils almost free access to the Library, and promised that any pupils who had been a member for two months would have the right to name any book which she would like the Library to possess. It was her wish too to establish a Reading Club, as soon as the girls began to appreciate the value of general reading. But in Miss Pratt's estimation, the moral tone of the school was of much greater importance. Any instance of dishonesty or falsehood was very severely punished, and a careless worker soon found what it was to be under Miss Pratt's displeasure. She wished her girls to be gentle and lady-like, bright, earnest and true."

Of the pride she took in her school and of the attention she paid to its cleanliness, we can bear personal witness. But her forte was her teaching.

She loved it for its own sake, and often said that her greatest delight was to have a class of pupils before her. She possessed all the essential qualities of a good teacher. The Tea and Tennis Club became an established institution under her, and was fostered the more because it brought her into unofficial relations with her staff and students. We are told that the last Tennis party took place on the Monday (a holiday) before her death. After the tennis, the members and friends adjourned to the house. One who was present says:—"As long as students and pupils live, that happy morning will, we think, live in their memories. Games of all sorts were played, and the finale was a dance—the veriest mad-cap dance ever known. Laughter and merriment filled the room, and the motive power of it all was to be found in Miss Pratt herself."

Another correspondent writes:—"We could not have wished for a kinder and more feeling friend. All in the school, from the servant upwards, felt and were thankful for her many acts of goodness. The School Writer, a Hindu, has often had many a little present from her in the shape of toys and illuminated cards for his little ones at home. And one day thinking that he needed recreation of some sort after a hard day's work, she purchased for him a ticket for a Circus that was at that time performing in Madras. She would show the greatest anxiety when any fell ill in the school and would take them to her own apartments and attend to them herself. She was most considerate to those who returned to school work after illness and made every allowance to those who looked delicate and poorly. Students who were obliged to leave their homes early in the morning to come to the school or to return home late in the evenings would often be treated to a light breakfast or be invited to tea by her. Her first thought was always the welfare of the school and the health of the pupils."

In all respects Miss Pratt seems to have been an ideal teacher. We all need to cultivate the intimate relation between teacher and pupil which she fostered with so much success. It seems hard that a life so young, so useful, and so full of promise should have been taken away. Her relatives and friends, however, may reap some comfort for her loss in the fact that she did her duty conscientiously and ably to the very last, and that her good deeds live after her.

NEWS AND NOTES.

LOCAL AND INDIAN.

Dr. Bradshaw has been granted a still further leave of six months, on medical certificate.

A letter has come to hand from Mr. R. Sewell, of the Madras Civil Service, announcing the first prehistoric Dravidian discovery.—*Athenæum*.

Mr. Reed, the Principal of the Maharajah's College, Travancore, has resigned his appointment. He has been offered a lectureship in one of the American Universities.

We understand there is an unusually large number of candidates this year for the Matriculation and F. A. Examinations of the Madras University. Next year the new rules affecting these Examinations come into force.

An Agricultural Primer for use in native schools in the Punjab is under preparation by the Educational Department under the direction of the Agricultural Department.

We understand that the Government has receded from the position which it took up with respect to the qualifications of the Registrar of the Madras University. It is now prepared to sanction the appointment of a Registrar who may be a Fellow of the University at the same time.

A very readable and creditable History of the Punjab has been written by one Syad Muhammad Latif. We congratulate the author and trust that other native gentlemen will follow his example in elucidating the history of their country.

The Rev. A. W. Atkinson, the present Principal of the Lawrence Asylum at Ootacamund, was made the recipient of a handsome silver inkstand, an exact model of the handsome school building of La Martinière, Calcutta, on the occasion of his taking leave of his former pupils.

We are glad to learn that Mr. R. C. Dutt's "*A Brief History of Ancient and Modern India*" has been selected by the Calcutta University as the text-book in History for the Entrance Examination for 1894. The book is highly spoken of by the entire press and eminent educationists.

Miss Henrietta Bernard has been appointed Acting Superintendent of the Training School for Mistresses in the room of the late Miss Pratt, pending the arrival of a permanent Superintendent from England. The Misses Parsons, who graduated last year, have also joined the staff of the Institution.

Mr. Vasudeva Rao, B.A., Principal of the Dharmivant College, Hyderabad, has read an interesting paper on the heredity and regeneration of India, contradicting Professor Macmillan's theory that female seclusion is the main cause of the retrogression of India, and showing that the caste system was the root of all the evil.

The Commissioner for the U.C.S. Examinations has notified that for the practical Test in pianoforte playing at the Preliminary Higher Examination in Music to be held in October next, candidates will be

examined in 12 pieces in Sections III and IV of Charles Halle's Piano-forte School only, the pieces to be selected by the candidate.

The Rev J. B. Palmer, B.A., St John's College, Cambridge, 10th Wrangler Math. Trip. 1889, 2nd class, Theol. Trip. 1890, is coming out to India this Autumn. Mr. Palmer after gaining some knowledge of Malayalam will succeed the Rev. Jacob Thompson, M.A., the present Principal of the Cambridge Nicholson Institution, Cottayam, Travancore.

It is expected that the graded list of the Educational Department of the Punjab will be abolished, so far as concerns future appointments. It is unlikely that, except in rare cases, appointments to the superior grades will continue to be made by the Secretary of State. The Educational Department will look to India to supply most of its wants.

The Rev. O. Dene, late Principal of the Lawrence Asylum, Ootacamund, has received from the Government a gratuity of Rs. 5,000 out of the funds of the institution. This has caused general dissatisfaction, as the reverend gentleman is enjoying a pension as a retired Chaplain, and was in receipt of a good salary as Principal. Furthermore, he is not known to have achieved anything remarkable during his tenure of office.

The Rev. Prof. T. Witton-Davies, in the course of an interesting paper on "Oriental Studies in Great Britain" read at the Oriental Congress, remarked that there could be no doubt that in proportion to their importance Oriental subjects were neglected in England. Indian languages and general Indian subjects had been more attended to than other Eastern matters, but even these had been shamefully neglected alike in the great schools of learning, and by the Government, which had done little to encourage original research in this direction.

We were present at the prize distribution of the Railway Schools at Perambur last month. We were very pleased with the successful way in which the little ones went through their gymnastic exercises. We endorse the remark which Mr. Phipps, the manager, said the Inspector, Mr. Marsden, had made, viz., that the school buildings were model ones. Among the many visitors we noticed Miss Pratt, the Mistress of the Presidency Training School for Mistresses. We little thought that a week hence she would be on her death-bed!

Some Sinhalese ladies at Galle have made arrangements to start a Weekly Woman's Paper in the vernacular. The journal is to be an

unsectarian one, and its columns will be devoted to all that concerns woman, while the editors and her staff will be all Sinhalese ladies. The idea of a woman's paper first originated at Colombo, and the Women's Educational Society will have an organ of their own at no distant date. It is gratifying to see that the Sinhalese women are trying to help themselves and make female education the corner-stone of their civilization.

At the annual distribution of prizes at the Brooks' Memorial School, Ootacamund, the Governor, Lord Wenlock, said:—I find it is impossible for anybody to get on in the superior ranks of the service unless he is thoroughly acquainted with at least one of the Vernaculars of the country. Although some people consider Latin to be useful, I myself think that giving a smattering of Latin to small boys is hardly any use. It is really very much more useful to have a proper knowledge of the Vernacular of the country one is living in, than a smattering of one of the oldest and more classical languages.

We are glad to hear that the Chicacole Teachers' Association is steadily progressing, its Secretary being M.R. Ry. G. Mukundarao Naidu Garu, Headmaster, Municipal High School, Chicacole. The noticeable feature as regards this Association is that it has given prominence to the practical side of teaching and devotes a meeting in every month to the giving of a model lesson by one of its members. It has recently adopted a resolution that every effort should be made by its members to encourage among students dramatic reading of select authors in English, Sanskrit and the Vernaculars.

By the death of Dr. Rajendra Lala Mitra, which took place last month at Calcutta, India has lost one of her few native scholars who, both by sound principle of research and by command over the English language, could rank with Orientalists of Europe. His career is also specially interesting, because he did not belong to the Brahman caste (with whom a knowledge of Sanskrit is hereditary) nor did he ever enjoy the advantages either of a University Education or a professorship. Like the English Pioneers of Orientalism—Jones and Colebrooke and Prinsep—he may be called an amateur, in the best sense of that word.—*Athenaeum*.

SANSKRIT EDUCATION.—The twenty-third anniversary of *Veda Vedanta Vardhini Sabha*, took place last month at Sri Parthasarathy Swami's Temple, with *Alia Manaraja Jheeyangar* in the Chair. Fifty-six candidates belonging to schools under the management of this

Sabha, and eighteen candidates from outside, were present to undergo examinations in various branches of Sanskrit Literature. The examination was conducted in Sanskrit by Pandits Srinivasa Chariar, Ghanapati Alusur Alagasingara Chariar and others, the subjects in which the candidates were examined being Veda, Hindu Philosophy, Grammar, Logic and Poetry.

We understand that Mr. Nelson, Principal of the new Law College, has submitted some proposals to the Syndicate of the Madras University in connection with the B.L. Degree Examination to the effect that the course of study for the examination might extend to only two years, and not to three, as at present, and that there should be two examinations, one called the Preliminary Examination, and the other the Final Examination in Law, at the former of which candidates will be examined in a certain number of subjects, and at the latter in certain other subjects. The proposals made are very important ones, so far as the law education in this Presidency is concerned; and we have no doubt that they will receive careful attention at the hands of the members of the Syndicate and of the Faculty of Law.—*Times*.

In the address to the pupils of the Salem Government Girls' School which Mrs. Stokes through indisposition was unfortunately unable herself to deliver, occurred the following words:—You would all like to be loved and respected by your friends and neighbours? Well, then, be kind to one another, not speaking evil or listening to it, but having kind feelings towards all, and cultivating that charity of thought, word and deed which is the most beautiful and ennobling of all womanly virtues. Though you cannot all hope to rival those of your sisters who are now the noble and self-sacrificing pioneers of your future freedom, or even that distinguished girl who only the other day passed the Matriculation Examination, and is now a student at Girton College, still it is in the power of every girl to determine whether her life is to be an influence for good or for evil.

The Lower Secondary examination will for the first time be held in December next and the following months. It will be conducted in each district by the Board of Examiners appointed for that district. Applications for the examination must in each district be forwarded to the Chairman of the Board of Examiners for that district. The date of examination will be notified in the District Gazette. Madras and Chingleput candidates must apply to Mr. A. E. Duchesne, B.A., Pachayappa's College, before the 1st October and the 12th November

respectively; the examination will be held on the 1st December in Madras and on the 26th January at Chingleput. For fuller particulars, see the *Fort St. George Gazette* of the 15th September. We shall, in our next issue, briefly indicate the scheme of examination—the subjects and the portions in each.

We regret to announce the death of Mahammad Ishag Khan Bahadur. In the way of Oriental scholarship, it will be hard to supply his place, as he was well versed in English and the grammar thereof, as well as in Persian, Arabic and Hindustani. In his time this gentleman must have passed over a thousand officers into the service, both military and civil, and has over 500 certificates from gentlemen and ladies (H. E. Lady Hobart was one of his pupils). He was lately pensioned from the office of Paymaster of Carnatic Stipends and Persian Translator to Government. He received the title of Khan Bahadur in 1887, and there were few native gentlemen that deserved it more. His name must be a household word amongst the officers of H. M. Indian Army, as besides passing the numbers before mentioned, he was constantly receiving translations to correct from all parts of India and Burma.—*Times*.

The Headmaster of Rai Bahadur Arcot Narayanasami Mudaliar's High School, Bangalore, has arranged for holding a *Comparative Examination* of the Matriculation classes of several High schools in the Presidency. All the schools pay for the printing and postage charges at three annas per pupil presented for the examination. Each Headmaster gets a paper or two sets and valued by himself and his staff. One such examination was held in the last week of August last. The following 15 schools presented pupils for this examination. Narayanasami Mudaliar's High School, Bangalore; Board High Schools, Dharapuram, Namakal and Villapuram; Hindu High Schools, Tiruvalur and Palankotta; National High School, Trichy; Native High Schools, Chingleput, Kumbakonam, Mannargudi and Trivellore; Pachayappa's High School, Conjivaram; Mahant's High School, Tripati; Congress High School, Madanpalle; Town High School, Erode.

LORD WENLOCK AND VERNACULAR EDUCATION.—Lord Wenlock's remarks about the necessity of a knowledge of the Vernaculars by Government officials is no doubt the outcome of his recent tour in the districts. The reason for his expressing himself on the subject may be either the disadvantage at which he felt himself placed in not understanding the language spoken round him by the people or, possibly, in finding that his officials did not know them as they ought to. Any way his opinion is a sound one, and Government would do well to offer

greater opportunities of leisure to study them than are enjoyed at present, and to be more liberal in the granting of rewards. A soldier can get language leave, and a reward if he passes even the colloquial examination. So far as we know, a Civilian can get no leave for the study of a language, though he gets a month if he pass one of the higher examinations, and also a reward. But how many Civilians in India, after they join Government service have time for study?—*Civil and Military Gazette.*

* * *

At the Oriental Congress, Dr. Leitner delivered an address, on "Oriental Education," in which he said that he had been accorded the almost unique privilege of studying the Koran in a Mosque school. To those who took time to consider and watch results the minute directions given to the Oriental student were not without their lessons, showing as they did the subtle influence of climate and birth on the nature of studies. In this connection he asserted that early marriages made the natives responsible and good students. He could not overstate his veneration for the Sanskrit education given among the higher classes in India. He contended it was a duty to preserve and develop according to native requirements what yet remained of the Oriental, despite the vicissitudes to which the races had been subject by political invasion. As a special object of the Congress he had to propose that the attention of the various governments represented should be drawn to the importance of fostering Oriental studies. More knowledge of Eastern ways was needed even in commercial transactions.

* * *

One of the Bye-laws which effects the largest number of those interested in the Schools of Music is to the effect that the Council shall, for the present, adopt such courses of instruction as shall fit students for the three Government Examinations, viz., the Elementary, the Preliminary Higher and the Advanced Higher Examinations. Classes will be formed as early as practicable for the instruction of students for any of the above examinations, and facilities will be afforded to students for studying any special branch of music without reference to examinations. The Council intends to make arrangements for the conduct of local examinations in music on behalf of other Institutions (such, for example, as Trinity College, London) desirous of extending their scheme of examinations to India. When the number of students warrants such an arrangement, rooms for the instruction of classes will be engaged in different parts of Madras and its suburbs. It is hoped that early arrangements will be made for a course of popular lectures on music, and for at least one concert to be given under the auspices of the School of Music.—*Mail.*

260

Sir Grant-Duff, a former Governor of this Presidency, writes "What effects we have produced have extended to an extremely limited class, and have very often just missed those sections of the population to whom it would have been most desirable to give some of the ideas of the West. We made some terribly blunders when we first attempted to start the higher education in India. We found there a people whose clearest minds were very much given to abstract speculations, mathematical and philosophical. We plied them accordingly with mathematics and philosophy. They took most kindly to both, of course; but what has come of it all? What have our schools and colleges in India added on these subjects to the general stock of human knowledge? What we should have done was to have introduced the natives of India to what was best in our literature, to calm regions which had nothing to do with political straggles from which a race, moulded by influences utterly and absolutely different, had nothing whatever to gain. Of that kind of literature we have, thank God, abundance, and could have given them of it in ample measure. An even better gift would have been that knowledge which would have enabled them to remedy the great defect of India and to make it, by a proper development of its resources, a rich, not a poor country."

* * *

The distinction which has been conferred on Dr. Oppert by the Committee of the Oriental Congress was in recognition of the merits of a paper on "Indian Theogony," which had previously been read by the learned Professor before the Maine Historical Society of Madras. The history and genealogy of Indian gods and goddesses comprise a subject which gave a broad scope to Dr. Oppert's faculties of research and criticism. In the first part of his paper Dr. Oppert treats of Brahma, pointing out the important fact that, contrary to the statement repeated in all printed books on the subject, viz., that the worship of Brahma has died out in India and is now performed in only one place in the North—this worship exists in many places in the South. It may be mentioned that special interest attaches to the paper on account of its connection with Dr. Oppert's previous papers, to which it forms the sequel. In these papers, published in the *Journal* of the Madras Literary Society, the question of the original inhabitants of India was treated from a philological and ethnological standpoint. The present paper on "Indian Theogony" treats the same subject in connection with the development of religious belief and ceremonial institutions. We may mention in conclusion that the paper is to be found in the Proceedings of the Maine Historical Society for October 1890, published at the Lawrence Asylum Press, and obtainable for the very moderate sum of one rupee.—*Mail.*

COLLEGE OF ENGINEERING, MADRAS.—With reference to certain proposals submitted by Captain Love, R.E., Principal of the College, the Government agrees with that officer in thinking that any extension of the practical course beyond two years would be undesirable, and for the present and until the new workshop has been constructed, no change in the existing arrangements seems called for. When, however, the new workshop is in full working order, it will become possible to reduce the time spent by the students at the workshops of the P. W. D. from one year to six months, and if this be done, there will remain eighteen months during which the students can be employed in Public Works Divisions. As to the distribution of the eighteen months following the training in the P. W. D. shops, it is not possible to accept the arrangement proposed by the Director of Public Instruction, seeing that the Railway authorities object to receive students for training, and that the only Road Divisions are in parts of the country to which students could not be sent; the constant moving of students from one Division to another is also undesirable. On the whole the Government considers it desirable that the eighteen months' course following the six months' training in the workshop should be divided between nine months' training in the Consulting Architect's Division and a similar period in an Irrigation Division. As to travelling and subsistence allowances during the practical course, the Government considers that they should be granted at the present rates, but that they should be given only when the students are sent away from the Presidency town.—*Indian Engineering*.

LITERARY AND GENERAL.

This summer one hundred and seventeen tourists in connection with the Polytechnic Institution in Regent Street, London, visited Norway on a fortnight's trip at a cost of about £9 a head. The Excursion was a great success.

There are about 17,760 periodicals published in the United States, and the total number of periodicals and newspapers printed in a single edition is 45,524,000. The daily papers throughout the country issue 6,653,250 copies every day. Of the paper having a circulation of over 100,000 New York has 24, and Philadelphia 9.

A scheme is on foot for the purpose of promoting patriotism amongst the rising Canadian generation. A committee of leading educationists have in hand a proposal to issue a text-book on Canadian history, showing the patriotic deeds of the past three centuries. They intend offering a prize

of \$2,500 for the best manuscript, the conditions of which are now under discussion.

Foreign languages are now taught in some of the American cities by the ingenious means of phonographic cylinders. Sets of these are also supplied which contain a conversational course of French or German, each phrase number to correspond with its written characters in a book which serves as a key to the sentences with which the cylinders are charged. In this way, ear and eye are simultaneously informed, and the difficulties of pronunciation conquered.

A writer in the *Quarterly Review* says:—"The real makers of Germany are the philosophers and poets at whom we have briefly glanced, and the smaller men who sat at their feet and disseminated their teaching. With Leibnitz the line of "light and leading" begins. In Lessing we salute the first German classic. Goethe and Schiller create a literature which is the common heritage and priceless treasure of the Fatherland, binding it in intellectual solidarity. Kant establishes the ethical unity of his country upon the adamant foundation of the transcendental morality. Hegel supplies the cohesive doctrine of political science, and exhibits the type of the State in which the men of action were to complete the unifying work of the men of thought.

Germany possesses a common morality. Germany possesses, too, a common tongue, a common literature, common traditions, common aspirations; a patriot army where every man must serve his country and receive the priceless blessing of military discipline; political institutions which afford orderly expression to popular sentiment, and guarantee to all a rational amount of individual freedom: and a royal house—true kings of men—in which the national life is centred and expressed. This is what Germany—a century ago so chaotic and impotent—has now become; "whole in herself, a common good" to her children; a bulwark of law and order among peoples given over to "anarchy and self-government by the basest;" "a noble and puissant nation."

In the *National Review*, Mr. Hugh E. Egerton writes upon the "Historical Drama and the Teaching of History." He concludes his article by a curious appeal in favour of the *Magic Lantern Mission*. What is wanted, he declares, is something that shall bring history home to the common intelligence of the average working man, and the only means remaining by which history can be taught are lectures relieved and animated by calling in the aid of the sense of sight. In other words, if

the masses are to be taught and interested in history, it can only be done by the aid of the magic lantern. The lectures might be developed into the representation of historical tableaux vivants.—*Review of Reviews.*

OCEAN PENNY POSTAGE.—We are likely very soon to hear something definite in reference to a system of imperial ocean penny postage. Mr. Raikes, it is understood, recommended the adoption of such a system to the Cabinet some time ago. That the recommendation was accepted is, says the *Chronicle*, best proved by the fact that negotiations are now actively in progress for organising the system. Delay has arisen in connection with the arrangements which the Treasury is making with the Indian Government, but no insurmountable difficulties have appeared. How far Mr. Raikes's scheme will go it is not possible at present to say, but there is no doubt that it will be pretty broad. Many communications upon the new departure have passed between Mr. Raikes and Mr. Hanniker Heaton.

Few more remarkable illustrations are afforded us of the enormous importance of the intercommunication of ideas and of information between those who are in concert, than the story of the growth of the great modern movement for democratising the universities. The way in which the University extension movement, after taking root on this side the Atlantic, sprang up on the other side, show how much may be done when the much-to-be-desired return of the best that is attained by those who are working for the amelioration of the condition of the people is made up and rendered universally accessible. Professor Herbert B. Adam, of John Hopkins' University, in the last number of the American Edition of the *Review of Reviews*, has told at great length the story of the way in which the University extension movement began in England and was afterwards carried over to America.—*Review of Reviews.*

Charles Lamb, the essayist, had the unfortunate habit of stammering which gave him little trouble unless when excited and earnest. Then it hindered his utterance, and sometimes provoked his quick temper. An amusing story is told of his bathing at Brighton. It was then the fashion to have men stationed in the water to dip the bathers. Lamb submitted to the operation, and began to give instructions as to his wishes. The stammering came on badly. "I am to be di-di-di-di-dipped," said he. "Oh, yes, we understand," was the prompt reply; and suiting the action to the word, they gave him a deep plunge. He came to the surface with red face, and spluttering in an excited tone. "I am to be di-di-di-di-dipped." "O, yes, we understand," and under he went again, deeper

than before. When he came up, he was more excited than before, saying angrily: "I am to be di-di-dipped!" "O, yes," and under he went the third time. This was too much for him, and striking about lustily, he cried: "Stop, stop! I was telling you I was to be di-di-di-dipped but once." It was too late to rectify the mistake.—*Echo.*

In the North American Review Professor Freeman sets forth, with his customary painful lucidity, the difference between a college, which was in its beginning simply an endowed house for the maintenance of students in the universities, and universities, which were simply the whole body of masters and students who settled down in any existing town. He explains that halls were simply the house in which scholars began to live together in small societies, and which at first might be the property of anybody. If by a hall we understand a house occupied by students, a college is simply an endowed and incorporated hall. He also tries to explain the exact position of an Oxford tutor and an Oxford professor. The professor is an endowed university teacher, who, in a university which has no colleges, is the immediate teacher of the students. In a university which has colleges, that work falls more naturally upon the college tutors. In a healthy state of things, the tutor would take the lower, and the professor the higher branches of teaching. The present state of things is not healthy, but it might be made so—at least so thinks Mr. Freeman.—*Review of Reviews.*

On September 1st the new Education Act came into force. It is not known how far its provisions will be accepted by Voluntary schools, but present appearances lead to the belief that they will be practically unanimous in agreeing to them. During the past month the managers of these schools have been asked by the Education Department to fill up forms declaring their intention either to accept or reject the fee grant. All the schools under the management of the London School Board will, however, be henceforth open, free of charge, to all children between the ages of three and fifteen. In these schools not only will gratuitous instruction be given by a staff of adult and trained teachers, but the whole of the material necessary for the successful school work—books, slates, and objects for occupation in Kindergarten exercises, and in instruction in elementary science lessons will be supplied without charge. Many provincial boards have already followed the example of London, hesitation to free the whole of their school being manifest only in towns like Manchester, where school fees have hitherto been high and the local rates correspondingly low.—*Echo.*

REVIEW OF EDUCATIONAL JOURNALS.

We regret that for some unexplained reason we have not received this month the usual English and American Journals. Rather than delay the issue of the Journal any longer, we have determined to omit the column this month.—(EDITOR.)

CORRESPONDENCE.

To the Editor of the Journal of Education, Madras.

MAGIC LANTERNS.

SIR,—I thought the remarks in the August number of your Journal, regarding the value of the Magic Lantern as a means of combining instruction with amusement, very much to the point. You will be conferring a favour on Educationists if you will give a list of prices of lanterns and slides.

PALGHAT,

Sept. 8th, 1891.

C. M. BARROW.

[We are glad to supply Mr. C. M. Barrow, and other educationists with the information which is desired. Newton & Co. of Fleet St., London, supply a thoroughly reliable lantern for £9-9-0—No. 3356, the *Optical Lantern* which can be used with lime-light or with a 4-wick 'Refulgent Lamp.' Their slides, which represent all conceivable subjects, are 1s. 6d. each or 15s. per dozen—beautifully coloured 5s. each. If these should be too expensive, we can strongly recommend Walter Tyler's (48 Waterloo Rd., London) *Helioscopic Lantern* No. 2459, used with a 4-wick lamp, and sold for the low price of £3-18-0. Mr. Tyler, during the last winter supplied the Recreative Evening Class Association of Norfolk Street, Strand, with 30 of these lanterns, all of which gave great satisfaction. Mr. Tyler's slides are a speciality with him. He sells them at 1s. each, and 1s. 6d. coloured. Mr. Tyler is strongly recommended by many who have worked his lanterns. Both firms will be glad to supply printed lists to those who apply for them.—EDITOR.]

A RETROGRADE STEP IN THE MATTER OF HIGHER EDUCATION.

The disclosure made in the September issue of the Journal of Education about the views of the Director as regards the Rajahmundry College must have conveyed a note of alarm to the minds of many interested in education. It was alleged that the decreasing strength of the College necessitates the consideration of its retention as a First Grade College, however much the Director may regret it. There are at present but three First Grade Government Colleges in the whole Presidency, one in the Metropolis to serve as a model institution, one for the south

at Cumbaconum, and one for the north at Rajahmundry. The last of these has, in its own way, been the nursery of talent and learning for many years past. It has filled what are considered as backward tracts with men of light and leading, and made the town of Rajahmundry the centre of progress and reform. But now we are told that its days are numbered and that, out of the three First Grade Government Colleges vouchsafed to us, one may shortly cease to exist. We may say in this connection that, should the abolition of the College be decided upon, the Northern Circars will be deprived of one of their powerful civilizing agents. The decrease in the strength of an institution may show that there is no demand for it, and that it is inadvisable to maintain it at a great cost. In this particular case, however, the fact is otherwise. Without implying the slightest disparagement to the gentlemen of high educational renown connected with the College, it may be observed that the staff of the College has of late years considerably deteriorated. With the abolition of the Government Second Grade Colleges and the consequent necessity of providing elsewhere for the lectures of these Colleges, there came an era of decline for the Rajahmundry College. The lecturers instead of being evenly distributed over the Educational Department were nearly all of them appointed to lecture in the Rajahmundry College, and this naturally tended to impair the efficiency of its work. To deny an institution the means of keeping itself up to the mark and adduce its inefficient working as a plea to threaten it with extinction seems to us to be somewhat unfair. As the subject is fraught with momentous consequences to the cause of education, it is hoped that those interested will take it up and avert the impending danger to an institution of recognized usefulness and long-standing reputation.

VOX POPULI.

FREE EDUCATION.

DEAR SIR,—I have been much interested in what you have been saying in the last numbers of your journal in regard to Free Education in the United States of America. But your self-congratulation on finding Dr. Fitch on your side, as you think, and conclusion that "Free Education has not been instrumental in improving attendance or in rendering education generally more efficient," seem somewhat uncalled for, if not unwarranted by the facts. Your contention might have great force against the system of education *per se*; but it seems to lack anything like a just appreciation of so great a scheme, as that which attempts to bring education, at least primary, within the reach of the people of widely scattered regions, such as are covered by the common schools of the

United States of America. The test of the system, I submit, is not whether it secures regular attendance and is conducive to a high efficiency, but rather whether it has proved at all successful along those lines and for those purposes for which it was ordained and to which it owes its existence. As one brought up in a state, with by no means the best, but with a fairly good system of common schools (for by no means do all States work Free education with equal success, the poor and more sparsely settled have a great struggle to cover their vast territory) I am bound to say that while the education imparted might have been much better, yet when all the circumstances are remembered one is rather surprised that it was and is as good in quality as one finds it. No just comparison can be set up between small and densely populated countries and those large and sparsely peopled.

Again, the attendance in our common schools is largely affected by that of the rural districts. Generally speaking, these rural schools are open only from 4—6 months in the year. An acquaintance with these districts will at once reveal the reason for such short terms. The children are all, or nearly all, the sons and daughters of farmers or those in some way connected with agriculture. Their children must help on the farms, as hired labour is scarce or dear; so that 5 or 6 months is as much time as can be spared for the larger children. For the smaller ones there will always be found ample opportunity for reading in subscription schools, which are found in nearly every community, especially in the east, opened for two 6 week sessions during the summer months. While it is true that many people in the assertion of their supposed liberty, do not send their children as regularly as they ought, yet when all things are considered the tendency to educate is far stronger than to neglect the opportunity which the State affords.

I can only add that there are other questions which your articles have provoked in my mind, but time and space hardly permit me to enter on them. The question of religion and our common schools, the wealthy and their relation to them, Free education and compulsory laws to enforce it upon negligent parents—all these questions have intense interest to the student of our American system. There are many rich people who are allowing the mammon of unrighteousness to close their eyes to real worth wherever found, forgetting as they must their own antecedents. But there are just as many and better men and women too who see in our common schools the only safeguard of our nation. For liberty without education is little short of license, and will speedily run into it. Our most serious questions arise not on account of those who adopt our common school system and use it for their children's good;

but rather on account of those, who crammed with old-world notions and false ideas of liberty, come among us and neglect this which has become one of the corner stones of our national safety.

A. E. L. COLLEGE, GUNTUR,
8th September 1891.

W. B. WOLF.

[The editor regrets that want of space compels him to decline the communications of Messrs. K. G. Rama Rau, G. S. Krishnaswami, K. Vijaya Raghavalu Naidu and P. Subramaniya Aiyer.]

STUDENTS' COLUMN.

SOLUTIONS TO QUESTIONS

PUBLISHED IN THE AUGUST NUMBER OF THE JOURNAL.

(Continued from our last.)

5. (i) If $b = \frac{2ac}{a+c}$, then $2 < \left(\frac{a}{b}\right)^n + \left(\frac{c}{b}\right)^n$

$$\begin{aligned} \left(\frac{a}{b}\right)^n + \left(\frac{c}{b}\right)^n &= \left(\frac{a+c}{2c}\right)^n + \left(\frac{a+c}{2a}\right)^n = \frac{(a+c)^n}{2^n} \cdot \frac{a^n+c^n}{a^n c^n} \\ &= \frac{(a+c)^n}{2^n a^n c^n} \left\{ \left(\frac{a}{c}\right)^n + \left(\frac{c}{a}\right)^n \right\} \end{aligned}$$

Now we know that $(x+y)^2 > 4xy$

∴ This expression is greater than $\frac{(a+c)^n}{2^n a^n c^n} (2a^{\frac{n}{2}} c^{\frac{n}{2}})$

$$i.e. > 2 \cdot \frac{(a+c)^n}{2^n a^{\frac{n}{2}} c^{\frac{n}{2}}} \quad i.e. > \left\{ \frac{(a+c)^2}{ac} \right\}^{\frac{n}{2}} \cdot 2 \cdot \frac{1}{2^n}$$

$$a \text{ fortiori greater than } \left(\frac{4ac}{ac}\right)^{\frac{n}{2}} \cdot 2 \cdot \frac{1}{2^n} \quad i.e. > 4^{\frac{n}{2}} \cdot 2 \cdot \frac{1}{2^n} > 2.$$

$$i.e. 2 < \left(\frac{a}{b}\right)^n + \left(\frac{c}{b}\right)^n$$

(ii) The question should be:—“Shew that the sum of n such fractions as

$$\frac{1}{1+x}, \frac{2x}{1+x^2}, \frac{4x^3}{1+x^4}, \frac{8x^7}{1+x^8}, \dots \text{ is } \frac{1}{1-x} - \frac{m2^{m-1}}{1-x^m}, \text{ where } m=2^n.”$$

$$\text{Since } \frac{1}{1-x} - \frac{1}{1+x} = \frac{2x}{1-x^2}, \quad \frac{1}{1-x^2} - \frac{2x}{1-x^4} = \frac{2x}{1-x^4}, \quad \frac{1}{1-x^4} - \frac{4x^3}{1-x^8} = \frac{4x^3}{1-x^8},$$

&c. &c. &c.

$$\therefore \frac{1}{1-x} - \left(\frac{1}{1+x} + \frac{2x}{1+x^2} + \&c. \text{ to } n \text{ terms} \right) = \frac{m2^{m-1}}{1-x^m}$$

where $m=2^n$.

$$\therefore \frac{1}{1+x} + \frac{2x}{1+x^2} + \dots \text{ to } n \text{ terms} = \frac{1}{1-x} - \frac{mx^{n+1}}{1-x^2}$$

$$(iii) 1+ab+cd = \sqrt{1+a^2+c^2} \cdot \sqrt{1+b^2+d^2}$$

Squaring and transposing we have $(a-b)^2 + (c-d)^2 + (ad-bc)^2 = 0$

Since a, b, c, d are real, each of the squares should be 0

$$\therefore a=b; \text{ and } c=d.$$

$$6. (i) x^2 + 2yz = a \dots \dots \dots (1)$$

$$y^2 + 2zx = b \dots \dots \dots (2)$$

$$z^2 + 2xy = c \dots \dots \dots (3)$$

$$\text{Adding (1), (2) and (3) } (x+y+z)^2 = a+b+c$$

$$\therefore x+y+z = \pm \sqrt{a+b+c} \dots \dots \dots (4)$$

Again put $y = x+m$; and $z = x+n$.

Then (1), (2) and (3) become respectively.

$$3x^2 + 2x(m+n) + 2mn = a \dots \dots \dots (5)$$

$$3x^2 + 2x(m+n) + m^2 = b \dots \dots \dots (6)$$

$$3x^2 + 2x(m+n) + n^2 = c \dots \dots \dots (7)$$

$$(5)-(6) \text{ gives } 2mn - m^2 = a-b \text{ or } 2mn = m^2 + a-b$$

$$\therefore n = \frac{m^2 + a-b}{2m} \dots \dots \dots (8)$$

$$(6)-(7) \text{ gives } m^2 - n^2 = b-c \text{ or } m^2 - \left(\frac{m^2 + a-b}{2m} \right)^2 = b-c; \text{ which gives}$$

$$3m^4 - 2m^2(a+b-2c) - (a+b)^2 = 0$$

$$\therefore m = +a, -a, +\beta, \text{ or } -\beta \text{ (suppose)}$$

Substituting these values of m in (8), we can get the values of n .

Now, Equation (4) becomes

$$3x + m + n = \pm \sqrt{a+b+c}$$

$$\therefore 3x = \pm \sqrt{a+b+c} - (m+n)$$

$$\therefore x = \frac{1}{3} \left\{ \pm \sqrt{a+b+c} - (m+n) \right\}$$

Since the value of $m+n$ has been found in terms of a, b , and c, β , is known. y and z are obtained from the equations $y = x+m; z = x+n$.

$$(ii) \frac{\sqrt{a}}{2\sqrt{a}+\sqrt{bc}} + \frac{\sqrt{b}}{2\sqrt{b}+\sqrt{ac}} + \frac{\sqrt{c}}{2\sqrt{c}+\sqrt{ab}} = 1$$

Multiplying the numerator and denominator of the first fraction by $\sqrt{a}$ those of the 2nd by $\sqrt{b}$, those of the 3rd by $\sqrt{c}$, we have

$$\frac{a}{2a+\sqrt{abc}} + \frac{b}{2b+\sqrt{abc}} + \frac{c}{2c+\sqrt{abc}} = 1 \text{ Put } \sqrt{abc} = x.$$

* $\left[-\frac{1}{1-x} \right]$ after ad in f in the L. H. S. has been omitted.

The value of $\frac{1}{1+x} + \frac{2x}{1+x^2} + \frac{4x^3}{1+x^4} + \dots$ to n terms $= \frac{1}{1-x} - \frac{mx^{n+1}}{1-x^2}$ where $m=2^n$. When n is infinite, m is also infinite. The limiting value of x^n ($x < 1$) is 0 and the limiting value of mx^{n+1} ($x < 1$) is 0. (See Art. 295. Higher Algebra, Hall and Knight). Therefore the value of the series to infinity $= \frac{1}{1-x} = 0$ when $x < 1$.

The equation becomes $a(x+2b)(x+2c) + b(x+2a)(x+2c) + c(x+2a)(x+2b)$
 $= (x+2a)(x+2b)(x+2c),$

Transposing and simplifying $x^3 + x^2(a+b+c) - 4abc = 0$

$$\text{or } x^3 + x^2(a+b+c) - 4x^2 = 0; \text{ for } x = \sqrt{abc}$$

$$\therefore x + a + b + c - 4 = 0, \text{ or } x = 4 - a - b - c$$

$$\therefore x^2 = abc = (4 - a - b - c)^2 \text{ or } (a+b+c-4)^2.$$

$$(iii) \frac{1}{x+a} + \frac{1}{x+b} + \frac{1}{x+c} = \frac{1}{x+a} + \frac{1}{x+\beta} + \frac{1}{x+\gamma},$$

$$\text{or } \frac{3x^2 + 2x(a+b+c) + ab+ac+bc}{x^3 + x^2(a+b+c) + x(ab+ac+bc) + abc}$$

$$= \frac{3x^2 + 2x(a+\beta+\gamma) + a\beta+a\gamma+\beta\gamma}{x^3 + x^2(a+\beta+\gamma) + x(a\beta+a\gamma+\beta\gamma) + a\beta\gamma}.$$

$$\therefore \text{each member} = \frac{\text{the difference of the numerators}}{\text{the difference of the denominators}}$$

$$\frac{2x \left\{ (a+b+c) - (a+\beta+\gamma) \right\} + \left\{ (ab+ac+bc) - (a\beta+a\gamma+\beta\gamma) \right\}}{x^2 \left\{ (a+b+c) - (a+\beta+\gamma) \right\} + x \left\{ (ab+ac+bc) - (a\beta+a\gamma+\beta\gamma) \right\} + abc - a\beta\gamma}$$

$$= \frac{ab+ab+bc - (a\beta+a\gamma+\beta\gamma)}{x \left\{ ab+ac+bc - (a\beta+a\gamma+\beta\gamma) \right\}} = \frac{1}{x}.$$

$$7. a = x + \frac{yz}{y+z}; \text{ or } a(y+z) = xy + xz + yz; b = y + \frac{xz}{x+z}; \text{ or } b(x+z) = xy + xz + yz$$

$$\therefore z(a-b) = bz - ay \text{ or } z = \frac{bz - ay}{a-b}.$$

$$\therefore a = x + \frac{y(bz - ay)}{a-b} \therefore ab(x-y) = bx^2 - ay^2.$$

Substituting the value of y obtained from $l = x+y$, we have

$$ab(2x-l) = bx^2 - a(l-x)^2$$

Reducing and arranging in powers of x ,

$$x^2(a-b) - 2ax(l-b) + al(l-b) = 0$$

$$\therefore x = \frac{a(l-b) \pm \sqrt{a^2(l-b)^2 - al(l-b)(a-b)}}{a-b}$$

$$= \frac{a(l-b)}{a-b} \left\{ 1 \pm \sqrt{\frac{b}{a} \cdot \frac{l-a}{l-b}} \right\}$$

$$\text{and } y = l - x = l - \left\{ \frac{a(l-b) \pm \sqrt{ab(l-a)(l-b)}}{a-b} \right\}$$

$$= \frac{b(l-a)}{b-a} \left\{ 1 \pm \sqrt{\frac{a}{b} \cdot \frac{l-b}{l-a}} \right\}$$

SOLUTIONS TO QUESTIONS

PUBLISHED IN THE SEPTEMBER NUMBER OF THE JOURNAL.

1. The embankment is a trapezoidal prism.

$$\therefore \text{volume} = \text{area of the base} \times l = \frac{a+b}{2} h \times l$$

$$= \frac{10+18}{2} \times \frac{8}{9} + 1760 \text{ cub. yds.}$$

$$= 2190\frac{2}{3} \text{ cub. yds. (volume of earth cut).}$$

2. The surface of the roofs of the verandah is the area of four trapezoids of which two and two are equal.

The breadth of the roof is the hypotenuse of a right-angled triangle whose sides containing the right angle are 8 and (20-12) feet = $8\sqrt{2}$

The lengths of the lengthwise roofs are 60 and (60+8+8) ft.

The breadths of the breadthwise roofs are 40 and (40+8+8) ft.

 $\therefore$ the area of the 4 roofs of the verandah

$$= \left(\frac{76+60}{2} \times 8\sqrt{2} + \frac{56+40}{2} \times 8\sqrt{2} \right) 2 \text{ sq. ft.}$$

$$= 8\sqrt{2} (136+96) = 8\sqrt{2} 232 \text{ sq. ft.}$$

$$\text{The cost} = \frac{8\sqrt{2} \times 232}{9} \times \frac{9}{4} \text{ Rs.} = \text{Rs. } 656.3 \text{ as.}$$

3. The area where the cow grazes is a quadrant of a circle whose radius is

$$15 \text{ ft.} = \frac{\pi r^2}{4} = \frac{\pi 15^2}{4} \text{ sq. ft. The area of the field} = 20^2 \text{ sq. ft.}$$

$$\therefore \text{the area of the plot where the cow cannot graze} = 20^2 - \frac{\pi 15^2}{4} = 223.235 \text{ sq. ft.}$$

4. The area of a regular plane figure =
- Ka^2

In the case of a regular octagon $K = (1 + \sqrt{2})2 = 4.8284$ $\therefore$ the area of the octagon = $4.8284 \times 3^2 \text{ sq. chains.}$

$$= \frac{4.8284 \times 3^2}{10} \text{ acres} = 4 \text{ acres} - 1 \text{ rood. } 15.2896 \text{ poles.}$$

5. The volume of a conical frustum =
- $\frac{\pi H}{3} \{ R^2 + Rr + r^2 \}$

$$\therefore \text{the volume of the vessel} = \frac{\pi 10}{3} (6^2 + 6 \times 4\frac{1}{2} + 4\frac{1}{2}^2) \text{ cub. in.}$$

$$= \frac{\pi 10}{3} (6\frac{1}{2} + 6 \times 4\frac{1}{2} + 4\frac{1}{2}) \text{ gallons.}$$

The number of times this vessel can be filled from a tank containing

$$3000 \text{ gallons} = 3000 \div \frac{\pi 10}{3} (6^2 + 6 \times 4\frac{1}{2} + 4\frac{1}{2}^2) = 945 \text{ nearly.}$$

6. Let
- x
- be the height of the ladder in feet.

Then the height of the wall in the first position is $\sqrt{x^2 - 9^2}$ ft.The height of the wall in the 2nd position is $\sqrt{x^2 - 14^2}$ ft.By the question $\sqrt{x^2 - 9^2} - \sqrt{x^2 - 14^2} = 4$ $\therefore x = 18.685$ ft.

7. Let
- h
- be the height of the cylindrical portion of the vessel in inches, then
- $10-h$
- in. is the height of the conical portion.

Volume of the cylindrical portion = $\pi r^2 h = 2^2 h$ cub. inches.

$$\text{Volume of the conical portion} = \frac{\pi H}{3} (R^2 + Rr + r^2) = \frac{\pi (10-h)}{3} (3^2 + 3 \cdot 2 + 2^2)$$

$$\text{by the question, } \therefore \pi 2^2 h = \frac{\pi (10-h)}{3} (3^2 + 3 \cdot 2 + 2^2) \therefore 4h = \frac{10-h}{3} 19$$

$$\therefore h = \frac{190}{31} \text{ inches} = 6\frac{4}{31} \text{ inches}$$

$$\therefore \text{the height of the cylindrical part is } 6\frac{4}{31} \text{ inches}$$

$$\text{and that of the conical part is } 3\frac{27}{31} \text{ inches.}$$

8. Let ABCD be the trapezoid of which the parallel sides AD and BC are 5 inches and 9 inches respectively. Three parallel straight lines are drawn dividing each of the other two sides into 4 equal parts. It is required to find the lengths of these three lines.

Through D draw DE parallel to AB meeting BC in E.

Then 4 similar triangles are obtained with D as their vertex.

The base of the largest triangle is (9-5) inches.

Then by the property of similar triangles the bases of the other triangles are 1, 2, 3 inches.

 $\therefore$ the lengths of the parallel straight lines are (5+1), (5+2), and (5+3) i.e. 6, 7, and 8 inches.

O. G.

[The Solutions forwarded by Messrs. S. Sankariah and K. Subba Rau were equally good with those published above.—Ed.]

QUESTIONS FOR SOLUTION.

ALGEBRA.

- I. In the equation $ax^2 + bx + c = 0$, when will (1) both the roots be positive? (2) both the roots be negative? (3) the numerically greater root be positive, and the other negative? (4) the numerically greater root be negative, and the other positive?
- II. What is the condition necessary in order that the equations $ax^2 + bx + c = 0$ and $px^2 + qx + r = 0$ may have (1) a common root? (2) both the roots common? (3) the roots of the 2nd equation equimultiples of the 1st? (4) the roots of the 2nd cubes of the 1st?
- III. Find for what values of x the following expressions are positive:—

$$(1) (x-1)(x-2)(x-3); (2) \frac{x^2-4x+3}{x^2+2x+2}; (3) \frac{x^2-5x+6}{x^2-9x+20}.$$

IV. Find for what values of x the expression

(1) $28-9x-x^2$ is greater than 2;

(2) x^2-4x+3 is greater than 5 and less than 7;

(3) $\frac{3x^2+7x+9}{x^2-3x+2}$ is greater than 4;

(4) $\frac{9x^2+24x+13}{2x^2-5x+2}$ is greater than 4 and less than 5.

SIR,—I shall be obliged by your getting the following questions answered in your next issue.

ENGLISH.

English Language.

I. Correct or justify the following:—

- a. His whereabouts is not known. His whereabouts are not known.
- b. The Proceedings of the Board of Revenue, No. 1861 of 1890, states, &c.
The Director's Proceedings on the subject are against your doing this work.
- c. I expect to finish it by to-morrow evening. I expect to have finished it by to-morrow evening.
- d. The Headquarters of the Tanjore Collector is Vallam.

II. Distinguish between the phrases or sentences in each of the following groups:—

- a. 1. The letter reached him safe.
2. The letter reached him safely.
- b. 1. He took her to wife.
2. He took her to his wife.
3. He took her for his wife.
- c. 1. One-bullock bandy; 2. One bullock-bandy.
3. One bandy-bullock.
- d. 1. History Professor; 2. Historical Professor.
- e. 1. My boy companion; 2. My boy's companion; 3. My boyhood companion.
- f. 1. He went home direct; 2. He went home directly.
- g. 1. I consulted the Doctor; 2. I consulted with the Doctor.

III. Point out the ambiguity in each of the following sentences:

1. He asked how old John was.
2. John married Mary.
3. Exactly at eight, the mother came up and discovered that supper was ready.
4. Children of all ages.
5. The remedy for drunkenness is not to be ascetic.
6. The lion turned from all that was offered with loathing.

REVIEWS AND NOTICES OF BOOKS.

CHEMISTRY, EQUATION SHEET, edited by T. SRINIVASA RAGHAVA ITENGAR, Wesleyan Mission College, Negapatam.

There is nothing to call for remark in this paper. It is ostensibly an aid to passing examinations and is intended for those who are advanced students.

FIRST LESSONS IN TAMIL by REV. G. U. POPE, M.A., D.D., 5th Edition, Oxford: Clarendon Press, 1891.

It is hardly necessary to say anything of a work that was first published in 1855 and which has gone through five editions. We may, however, observe that the analysis of the several elements of the language has been conducted on scientific principles, that the explanations and illustrations are clear and complete, and that even native students will find some nice points of structure and idiom explained in a new and satisfactory way.

THE PILGRIM'S PROGRESS by JOHN BUNYAN. Golden Treasury Series. London: Macmillan and Co., 1891.

This is the neatest and the handiest edition of Bunyan's Pilgrim's Progress which we have ever seen. It is a 'well of English undefiled.' Those Indian Students who are anxious to acquire a good English style will do well to remember that this book, together with the Bible and Shakspear, formed the material out of which John Bright built up his matchless oratory. A careful study of the Pilgrim's Progress will do more to create a manly simple style than all the elaborate directions to be found in the various handbooks on English composition.

PALGHAT VICTORIA COLLEGE CALENDAR FOR 1891-1892. Madras: Lawrence Asylum Press, 1891.

We are glad to see that Mr. Barrow has followed the example set by the Presidency, Pachaiyappah's, and the Engineering Colleges by producing a neat, handy, and useful Calendar of the Victoria College, Palghat. It contains all necessary information respecting the institution, and does much credit to the compiler and the printer. The Christian College is busy making up a similar Calendar, and we hope to see such important institutions as the Teachers' and Agricultural Colleges soon follow suit.

THE CHILDREN'S CASKET OF POETIC GEMS, Selected and arranged with Notes by D. N. WADIA, M.A., Principal, Sir Jamsetjee Jejeebhoy Parsee Benevolent Institute, Fellow of the University of Bombay. Bombay: 1889.

Part I contains a very good selection of choice old English nursery songs which recall many a pleasant reminiscence of one's childhood. To a large extent they are suitable for Indian children. Part II contains pieces suited to grown-up children and is a very fair selection from the better known and shorter English poems. The book is chiefly valuable for the collection of nursery rhymes which it contains,—for the rest we prefer the Selections in Macmillan's Golden Treasury Series.

PRINCIPLES OF POLITICAL ECONOMY with some of their applications to Social Philosophy, by JOHN STUART MILL. People's edition. Longmans, Green and Co., London and New York.

We are glad to receive this reprint of the People's Edition of Mill's Political Economy as evidence that the popularity of that notable work is not yet waning. Since Mill's time, Jevon's, Fawcett's, and Walker's manuals on the same subject have appeared. At the present day Professor Marshall's monumental work is indispensable to the student. But for all that Mill still appeals to a large section of readers who justly appreciate the vast erudition, the wide reading, the vigorous incisive style, and the philosophical reasoning which characterise his writings. Indian students particularly should study Mill, if only on account of his English.

FULL NOTES ON GRANT'S XENOPHON with Introduction, Index, Question Papers and Plans, by S. RADHAKRISHNA AIYAR, B.A. Madras: V. Kalyanaram Iyer, 1891.

The 'Notes' in this book are indeed *full*, so full that we should doubt whether any additional ones could possibly find a place. They are, however, good in their way. The Editor has been at some pains with the Introduction. It is very elaborate and tells the reader all he will generally require to know of Xenophon. It deals with the object of the Ancient Classics Series, gives an account of Sir Alexander Grant, gives a Chronological table of the main incidents in the life of Xenophon, discusses his character, classifies and estimates his works, discusses him as a historian, as a writer, treats of his originality, gives a tabular view of the events in the Anabasis, &c., &c., &c. Two good plans are given illustrative of the battle of Kunaxa.

GRAY'S POEMS. Edited with Introduction and Notes by JOHN BRADSHAW, LL.D. London: Macmillan and Co., 1891.

This is the long promised edition of Gray's Poems in Macmillan's English Classical Series,—a series which is rapidly acquiring the leading position among annotated texts for students. We have gone very carefully through Dr. Bradshaw's Introduction, Text and Notes, and have no hesitation whatever in pronouncing this edition of Gray by far the most accurate and scholarly edition yet issued by any publisher. Dr. Bradshaw, being at home on furlough, has had the advantage of consulting Gray's Manuscripts in the British Museum and of corresponding with Mr. Gosse, and others who have made a special study of Gray and his Poetry. He has thus corrected a good many minute errors and misconceptions which have crept into the works of other labourers in the same field. One of what we may call the 'common errors' in the numerous editions of Gray's famous *Elegy* occurs in the ninth stanza, where 'await' is the usual wrong reading for 'awaits'. As a specimen of Dr. Bradshaw's critical research and acumen we give his note on, 'awaits':—"This is Gray's reading in his manuscript and in the editions published by him; but almost all editors follow Mason and Miltord and read *await*. Scott of Armwell in his *Critical Essay on the Elegy*, published in 1785, writes in a foot-note: "It should be *await*, the plural for it includes a number of circumstances." I have traced *await* back to the appearance of the *Elegy* in Dodsley's *Collection of Poems*, i.e., in Volume IV., published in 1755. But as in the editions of the *Elegy* in 1753, 'corrected by the author,' and in his last edition 1768, Gray prints *awaits*, it is clear that he intended it to be so retained; besides, it is better to take 'inevitable hour' as the subject of 'awaits' and not 'boast,' 'pomp,' &c.; as not only is this inversion more in Gray's manner, but also the statement that the inevitable hour of death is waiting for the great, the beautiful, the wealthy."

1. VIRGIL'S BUCOLICS for the use of schools by T. E. PAGE, M.A., late Fellow of St. John's College, Cambridge; Assistant Master at Charterhouse. London: Macmillan and Co., 1891.
 2. MOLIERE. LES PRECIEUSES RIDICULES by G. EUGENE FASNACHT, late Assistant Master in Westminster School. London: Macmillan and Co., 1891.
 3. MACMILLAN'S FRENCH READINGS FOR CHILDREN by G. EUGENE FASNACHT, with Illustrations by LOUIS WAIN. London: Macmillan and Co., 1891.
- Each of these three little volumes represents a separate series, which is at present in course of progress, and published by Messrs. Macmillan and Co.

It is almost enough to say about the first that the Editor is Mr. Page of Charterhouse, late Fellow of St. John's College, Cambridge, well-known for his excellent edition of the Odes of Horace. This volume forms one of Messrs. Macmillan's series of "Elementary Classics," and 1s. 6d. is the published price of each book in this series. This edition of the *Bucolics* contains an Introduction, Notes, and a Vocabulary. The Vocabulary is useful to Elementary classes, but the Notes, which keep up Mr. Page's reputation for scholarship, will be found useful to students who are much more advanced. We can strongly recommend this little volume to such of our Indian schools as have Latin classes.

"*Les Précieuses Ridicules*" is one of Messrs. Macmillan's "Foreign School Classics." M. Eugène Fasnacht, who has already done a good deal of solid work in this line, is the general editor of the whole of this series. This particular volume contains an Introduction and Notes from his own pen, and will be found a valuable addition to the French literature that may be introduced into schools. It was by means of "*Les Précieuses Ridicules*," which shows up the pedantic talk and affected airs of the then fashionable literary circles of learned ladies, that Molière sprang into fame in 1659. This interesting play, as now presented to us, will afford the wearied Anglo-Indian a good laugh if he picks it up during a leisure moment: but we regret that, seeing the book is primarily intended for the use of schools, M. Fasnacht has not seen his way to translating into English the various authors whom he quotes in the Introduction. This we regard as a serious defect from the school standpoint. Out of an Introduction of xxxii pages, *only six pages are English*, (the rest being all in French), and the book is intended for *English* schools. We notice the same drawback in the quotations among the Notes. This takes away from the value of the book to all but advanced students. The Notes are indexed. We do not know the price of this book, but the previous plays of Molière by the same editor have been in this series, 1s. each.

The "French Readings for Children" is an illustrated globe 8vo. volume belonging to Macmillan's "Primary Series of French and German Reading Books." Here again, M. Fasnacht is the editor, and the little volume contains a goodly number of woodcuts by Mr. Louis Wain, introduced here and there wherever the subject matter seems to call for it in order to make the book more attractive to children. Everything has apparently been done to make the book not only useful but interesting to beginners, and we believe that these efforts have been crowned with success. It is saying a great deal, but it is not saying too much, when we state that this is the best book we have ever seen for young people

beginning to learn how to read and pronounce French, and we only wish that some such work had been published in our own time. The book costs 1s. 6d., and is very cheap at the price.

CHAUCER'S PROLOGUE TO THE CANTERBURY TALES, edited with Introduction, Notes, Glossary and Index by GEO. MADDOX, B.A., late Acting Principal, Doveton College, Madras, and Headmaster, Lawrence Asylum, Ootacamund. Madras: Srinivasa, Varadachari and Co., 1891.

A new feature of this work is the "Popularised Version." This version is poetical, in the metre of the original, and in modern English except where the metre requires the retention of ancient words and forms. It is bad enough to find on the same page as the original text, any of the modern forms at all. But Mr. Maddox evidently did not think so, and he has even gone still further in another characteristic feature of his book.

This feature is the "Prose Version" printed in a column parallel to the "Popularised Version", underneath the original version, on every page of the text. We confess to a feeling of genuine surprise at finding such a system as this adopted by an educational man of any standing. We should like to put it to Mr. Maddox whether if engaged in teaching a Latin or Greek author, he would willingly admit into his classes any student possessing a book which contained, not merely the text of the author, but the text *plus* a fluent English translation on the same page. We feel sure that he would not; and, if not in Classics, why in English? Such a thing as this strikes at the very roots of education. It encourages every fault that we try to discourage. It destroys industry, self-reliance, individual thought and research, and the sturdy independence that should mark students of the higher classes and lead them to weigh and sift evidence and examine things for themselves. We are all the more surprised at this "Prose Version" being at the foot of each page of text, as the students for whom it is intended are not preparing for Matriculation or F. A., but are grown-up young men, who have a fair knowledge of English language and literature, and who could, with great ease and greater profit to themselves, resolve in a fairly decent library such as all First Grade Colleges possess, nearly all the difficulties occurring in such a work as Chaucer's *Prologue*, while their Professors would supply the remainder in going through the text. Altogether, we condemn in the strongest possible manner this pernicious innovation in University text-books. This is the first annotated text-book in India in which we have seen such a system adopted, and if our voice is regarded, it will be the last.

We should point out that we consider the text of Mr. Maddox's edition to be now out of date, as the readings of the Ellesmere MS., on which Morris's 1889 edition of the *Prologue* is based, are usually better than those of any other MS., and the spelling is more exactly phonetic.

On the other hand, Mr. Maddox's Introduction contains some valuable work, and the selections from critics are judiciously made. His notes are good and full, and if he had adopted the best text now available, and not introduced the fatal innovation—which has never yet been attempted even with Matriculation or F. A. students, who might fairly be regarded as needing it more than candidates for the Degree—of giving a "Prose Version" at the foot of the original version, we should have had nothing but words of praise for his book.

ACKNOWLEDGMENTS.

The Introduction to a Hand-book of Geography with a set of exhaustive questions. Mangalore.

The Thirty-Fifth Annual Report of the Syndicate of the University of Madras, 1890-91.

System of Logic, by John Stuart Mill. V. Kalyanaram Iyer.

Longmans' Indian School Arithmetic, by John Adam. V. Kalyanaram Iyer.

Notes on Lyall's Warren Hastings, by R. Harvey, M.A., LL.D. Tawker Sadananda & Co.

Milton's Paradise Lost, Book I, by Masson. G. Bell and Sons.

The Ups and Downs of a Donkey's Life. G. Bell and Sons.

PROCEEDINGS OF THE DIRECTOR OF PUBLIC INSTRUCTION.

Rajahmundry College, 1890-91.

The Director in his report says:—The more or less unfavorable results obtained by the College at the University examinations during the past two or three years and the re-opening of the College department in the Pithapuram Rajah's College, Cocanada, have resulted in a further decrease in the strength of the College. The opening of railway communication from the Kistna District to Madras has no doubt tended in the same direction. In fact the number on the rolls of the B.A. as well as the F.A. sections was much less than during the previous four years. The unsatisfactory condition of Upper Secondary schools in the District, and notably of those in the town of Rajahmundry, has no doubt contributed to a large extent to the diminished supply of College students. The affiliation of His Highness the Maharajah's College, Vizianagram, to the University up to the B.A. Degree examination has also cut short the supply from the two Northern Districts of B.A. students to this College. There was but a single student belonging to the Vizagapatam District on

270

the 31st March 1891 against 9 on the corresponding date in 1890. The Director trusts that the Principal and his staff will, by exercising stricter supervision over the work of the students both during and out of College hours, succeed in securing better results. The recognition system approved by Government and adopted by the University should also, by raising the efficiency of Upper Secondary schools, lead to an improved and steady supply of students to the College, if the reputation of the College as a place of education is sufficient to counteract the attractions of the Colleges of the Presidency town. Unless the strength of the B.A. classes permanently improves, the question of retaining the College as a first-grade institution will certainly be raised, however much the Director may regret the necessity for so doing.

Of the 14 candidates presented for the Language branch of the B.A. Degree examination only 7 passed, and at the F.A. examination 16 out of 38 entrances were successful. These results cannot be considered satisfactory, considering the staff employed and the smallness of the number under instruction. All the eight students that appeared in the Optional branches of the B.A. examination were successful, a very satisfactory record, and due, as remarked by Mr. Metcalfe, probably in the main, to the fact that nearly all the candidates had passed in Language in the previous year. It is hoped that this fact will tend to encourage students to defer appearing for their Optional branch until a year after they have passed in Language. The successful teaching of M. R. R. Rangachariar and Ramalinga Aiyar is noted with pleasure. The failure in Physiology at the F.A. examination is noted with much regret. The Principal has not mentioned the names of the Lecturer or Assistant Lecturer entrusted with the subject. The Director can only partially accept the reasons assigned for the conspicuous failure which occurred. He trusts that his suggestion to organize literary readings will not be lost sight of as they should help to arouse enthusiasm in the students for general reading and culture.

With the exception of four Muhammadans and 10 non-Brahman Hindus, the attendance was wholly composed of Brahmans, and over four-fifths of the students were of the richer over middle classes.

College of Engineering, Madras.

Extracts from the review of the Director of Public Instruction on the Report of the Engineering College for 1890-91.

The Engineer class continued small, and the numbers stood at 12 on the 31st March 1891 against 13 on the corresponding day in 1890. Of the six candidates who appeared for and passed the entrance examination for admission to this class held in December 1890, only three joined the College. The smallness of this class, which is less than a third of its normal size, is solely attributed to the limited prospects of employment for passed students. There is no likelihood of the number of guaranteed appointments being increased; but the spread of technical knowledge, the growth of a scientific knowledge of the resources of Southern India, the opening to a larger extent than hitherto of railway and other departments to young men trained in the College, the development of the mining industry; the establishment of manufacturing mills and other enterprises requiring engineering knowledge are calculated to bring about a marked improvement in this direction. But the Director is assured that these circumstances will never have their full effect on this branch of education until the system of education itself is made much more practical, though not less theoretical, than it is at present. The existence of a really practical Engineering school in the country will enhance greatly the demand for skilled engineering labour.

It is disappointing to find that not a single Muhammadan has joined the College department. The increase under Native Christians is greater than that under other Hindus. The increase in the Brahmans in the School department shows that this class

of the population is taking to technical pursuits, probably chiefly owing to the pressure of competition in clerical callings.

Prospects of Passed Students.—This is the first year in which the students of the Engineer and Engineer Subordinate classes who completed the theoretical and practical courses under the reorganization scheme received their College diplomas. Of the four Engineers, two have secured the guaranteed appointments, and under G.O., No. 364, Public Works Department, dated 9th February 1891, nine Engineer Subordinates will be posted to the Public Works Department. There is a reasonable prospect of the other students gaining suitable berths in the railways under construction. In its order quoted above, the Government was pleased to reserve for the Subordinate Engineers of future years six appointments which is very encouraging. The Director is glad to find that all the Draughtsmen who passed have succeeded in obtaining employment. The register of passed students maintained in the College does not appear to be complete. It is very necessary that a full history should be kept corrected to date.

The record of the past year is one of a substantial progress on the practical as well as on the theoretical side, but much remains to be done before the College can be said to provide for the country an amount of technical education in regard to subjects falling within the scope of an institution of the kind fully equivalent to its cost. This object may be secured if it is amalgamated or associated with the School of Arts, and the number of subjects taught practically and theoretically in the combined or associated institution made to correspond with the industrial necessities of the country. Hitherto it has done little more than provide Engineering Assistant and subsidiary employes for a single great department—that of Public Works. This is good service, but it can do much more for the country without unduly increasing its cost.

Anjuman Industrial School for 1890-91.

In his report Mr. A. Chatterton says :—

Mr. Bickle thinks that the instructors spend a good deal of their time, which ought to have been devoted to the instruction of the pupils, simply as workmen engaged in the execution of orders. This, I believe, is in the main true. Some few days ago I visited the workshops and found all the instructors hard at work, but none of them teaching, and to this fact I attribute the large amount of the sales, which no doubt present a favourable appearance as an item in the annual balance sheet, but when looked into only show a misappropriation of the funds devoted to the payment of instructors. My own experience is that educational institutions can never be a commercial success, and that the funds realized from the sale of manufactured goods can seldom do more than pay for the cost of the raw material operated on. The object of the Anjuman Industrial classes is not to supply European residents in Madras with cheap and badly-made furniture, but to train Muhammadan youths in certain trades and to turn them out better carpenters and better carpet-weavers than can ordinarily be obtained in the bazaar. This is not done, and until more attention is paid to teaching the boys properly, and less to swelling the receipts from the shop in the Mount Road, cannot be done.

The Director's comments are :—

One point that has been prominently brought to notice by Mr. Bickle as well as by Mr. Chatterton with respect to the industrial instructors is that much of their time, which ought to be devoted to the instruction of pupils, is employed simply as workmen in the execution of orders. The statement is also corroborated by the large profits in the Carpentry department. This will lead to the institution gradually degenerating into a mere workshop, which the Director has strongly deprecated. He fully endorses Colonel Underwood's remark that carpenter pupils ought to be allowed to see complicated works in

progress to become efficient workmen in future, but he does not consider that the execution of outside orders should on that account form the major portion of the instructors' work. They receive grants from Government as instructors, and the managers must see that the money given by the Government is not diverted from its chief object. If it continues to be so diverted, the grants must be withdrawn.

Four kinds of industries are being taught in the school, viz., *Carpentry, Carpet-weaving, Embroidery and Tambour work.* One hundred and sixty students were on the

rolls at the time of inspection, 79 of whom are shown as "beginners." The strength of the marginally-noted standard classes was also weak. The beginners received no useful instruction, but served as helps to

Embroidery, Standards I and III.

Tambour work, Standards I, II and III.

the standard students. The average age of pupils in this and the 1st standard class was 10 or even below 10 years, and Mr. Chatterton objects to the admission of such young children for industrial instruction. The Director considers this objection well grounded so far as the carpet-weaving and the carpentry industries are concerned, but he sees no objection to the employment of children under 10 years of age on embroidery and polishing. He also advocates the teaching of young children in rattan work, which is an excellent preparation for such industries as carpentry, and can be made interesting and instructive to children, as mat-plaiting is in the Kindergarten system. There was also a large fluctuation in attendance, the year showing no less than 159 admissions and 189 withdrawals. It is much to be regretted that 99 were dismissed for continued absence. The average period during which each student received instruction was less than 12 months—a period quite insufficient to enable the average student to acquire any useful amount of knowledge, theoretical or practical. Mr. Chatterton forcibly objects to waste of time and energy on the part of the instructors and the students of the temporary classes. Colonel Underwood thinks that such a course cannot be helped, as to do away with the temporary classes would be opposed to the pledge upon which the institution was organized. Mr. Bickle's suggestion that a guarantee should be taken from the parents of all the pupils seeking admission into the school commends itself to the Director, but he doubts whether it is practical. He believes that the best system will be slightly to increase the present rates of wages on the understanding that the excess is invested in the Savings Bank in the name of the Honorary Secretary, and that the amount will be profited to the general funds of the institution if the pupil leaves without the consent of the Superintendent. Another arrangement might be adopted, that in force in the Reformatory School, Chingleput, viz., to give the pupils working a small share in the profits of their work, and to invest such share in the Savings Bank in the manner above suggested.

The total cost of the school was Rs. 12,930, of which nearly 17·4 per cent. was met from Government grants and 53·2 per cent. from the work done by the students. While the cost of the materials and the incidental charges amounted to Rs. 4,835, the total cost of the work done was Rs. 6,879. The outturn from the Carpentry department was the greatest. Embroidery and Tambour departments yielded a very small return, though it is noted with pleasure they received prizes at the Fine Arts Exhibition.

On the whole the administration of this institution is creditable to the managing committee. The primary aim of the constitution of the school, viz., the instruction of students or rather young men in the principles of certain industries, should, however, never be sacrificed to a desire to swell the profits account, whilst every effort should be made to render the literary instruction as efficient as possible, so that no Government aid may be lost through the low literary attainments of the pupils.

School Registers.

Read letter from the Inspector of Schools, Southern Circle,
dated 13th August 1891, No. 5891.

ABSTRACT.—Submitting, with remarks, the letter from the Manager, C.M.S. High School, Palumcottah, complaining against the practice of Inspecting officers taking school registers with them and retaining for several days.

It is desirable that the scrutiny of registers should, as far as possible, be conducted within the school premises, and the registers should not *ordinarily* be taken away from the school, except under circumstances in which their submission in original to the controlling officers is deemed necessary, or when there are important omissions or irregularities requiring careful scrutiny.

EDUCATIONAL NOTIFICATIONS.**APPOINTMENTS.**

Devasikhamani Mudaliyar Avargal, M.R.Ry. N., Acting sub. *pro tem* Assistant Inspector of Schools, Sixth Division, has privilege leave for one month, from or after the 21st September 1891, under article 291 of the Civil Service Regulations.

Bradshaw, Mr. J., of the Educational Department, has been granted by the Right Honorable the Secretary of State for India an extension of leave on medical certificate for six months.

M.R.Ry. M. Singaravelu Mudaliar, B.A., Sub-Assistant Inspector of Schools, Virudhachalam Range, to act as Assistant Inspector of Schools, Sixth Division, during the absence on leave of M.R.Ry. N. Daivasikhamany Mudaliar.

Miss H. Bernhard, First Assistant, Presidency Training School for Mistresses, Madras, to act as Supt., sub. *pro tem*, vice Miss Sarah Pratt, deceased.

The Acting Director of Public Instruction is pleased to appoint M.R.Ry. K. Duraiswami Aiyar to act as Sub-Assistant Inspector of Schools, Madura Range, in the Probationer's class, during the absence of M.R.Ry. S. Akshayalinga Mudaliar, on other duty or until further orders.

List of Subscriptions received on account of the Madras "Journal of Education," from 1st to 30th September 1891.

Subscribers not paying in advance are charged Rs. 5-8 the arrears rate.				RS. A. P.
Y. Kristniah, Mangalore	...	for 1891	...	4 8 0
Haridas Sastri, Jeypore	...	...	...	4 8 0
Secy., Young Men's Improvement Society	from July to June 1892	...	...	4 8 0
A. Kristnasami Sastri, Paramakudi	from June to May 1892	...	...	4 8 0
T. Srinivasa Row, Tiruvadi	...	for 1891	...	4 8 0
President Talug, Board, Tinnevely	from August to July 1892	...	...	4 8 0
Raj Bahadoor, S. Appu Sastri, Kumbakonam	...	for 1891	...	4 8 0
Shujat Ali Khan, Musiri	...	do	...	4 8 0
Head Master, Technical Institution	...	do	...	4 8 0
Head Master, Board Middle School, Kottayi	from Jan. to July	...	...	4 8 0
M. Venkanna, Vizagapatam	...	...	...	4 8 0
Mr. C. Venkata Row, Head Master, P. H. School, Vengaray via Namkal,	from July to December 1891	...	...	2 8 0
Mr. Lala Gyan Chandra, James Bazaar	...	for 6 months	...	2 5 0



THE
JOURNAL OF EDUCATION
MADRAS.

Vol. V.] **NOVEMBER 1891.** [No. 11.]

EDITORIAL NOTICE.

To meet the wishes of several Students who have approached us on the subject, the *Journal of Education* will in future be issued to such at the yearly rate of Rs. 3, including postage. Students, however, must order through the Headmasters or Principals of their respective Colleges, and should pay the subscription in advance.

THE PESTALOZZIAN PRINCIPLES AND INDIAN EDUCATION.

To no other man has it been given to so completely revolutionise the system of Education as did Pestalozzi. But what are known as the Pestalozzian principles were really evolved before Pestalozzi's time by educational theorists. Pestalozzi, however, arrived at the same principles by the light of nature and experience, save what he gathered from a perusal of Rousseau's *Emile*. The peculiar merit of Pestalozzi is that he was the first who had the temerity, the ingenuity, the perseverance, and the self-denial to put into practice what he preached. His direct influence upon Europe was enormous. The best educated countries of Europe at the present day are those which have accepted and applied his principles with enthusiasm, viz., Switzerland, Germany and France. Of these it is no exaggeration to say that Germany owes to that one simple man not only its education, but indirectly its material and national development. In the hour of its deepest debasement, when crushed under the remorseless heel of Bonaparte at Jena, Germany believed

that its only hope of regeneration lay in the inspiring and humanizing influence of a national education based on the principles of Pestalozzi. We know the result. A band of young enthusiasts headed by Froebel began the work. Germany revived and developed, and twenty years ago revenged itself on the nation whose First Consul had refused an interview with Pestalozzi seventy years before, on the ground that he could not be bothered with questions of A, B, C. As a writer in the *Quarterly Review* ably puts it:—"What was the ultimate effect of the monstrous wrongs inflicted by the First Napoleon upon Germany but to supply the discipline necessary for self-consciousness? It was that great and poignant experience which brought into practical form the results of thought, which forced Germany to a knowledge of her practical unity and hastened its development. And is there any circumstance in the annals of our race more significant than this, that the Third Napoleon was destined to complete the work so unconsciously initiated by the First?" Germany still delights to honour the Swiss Pestalozzi, for so recently as 1872, a Congress in which more than 10,000 German elementary teachers were represented, petitioned the Prussian Government for "the organization of training schools in accordance with the pedagogic principles of Pestalozzi, which formerly enjoyed so much favour in Prussia, and so visibly contributed to the regeneration of the country."

America has not been slow to swear allegiance to the great educational reformer. In no country in the world is the name of Pestalozzi more honoured, and his principles better known and applied, than in America. England, as in most matters educational, was slow to recognise the merits of the Pestalozzian principles. Some few Englishmen who visited Pestalozzi, reported favourably on his work; but the man who had then the most influence in England, viz., Dr. Bell, prophesied that Pestalozzi's method would be forgotten in twelve years, while the principle of *mutual instruction* would be adopted by the world. The idea of mutual instruction, better known under the name of the *pupil teacher system*, was borrowed from Pestalozzi by Dr. Bell, and applied and developed by him first in Madras, and afterwards in England. It is strange that the system of mutual instruction, which circumstances compelled Pestalozzi to adopt, should have been accepted by England,

seeing it involves one of the very few Pestalozzian principles, the merits of which are open to question.

India, which owes her modern system of education to England, is accordingly suffering by her almost absolute ignorance of the Pestalozzian principles of education. The name of Pestalozzi may be a name to conjure with for examination purposes, and his principles may be known as abstract truths by such few teachers as have studied for the Licentiate in Teaching Degree; but of the application of those principles, whether they be known as the Pestalozzian principles or not, native teachers generally know nothing. Their method of teaching, whatever may be their theory, is the Pestalozzian method reversed. Now the basis of the Pestalozzian philosophy is that education is a natural and an organic process, by which the nature and the innate knowledge of the pupil is developed and literally educated or drawn out, just as a plant is physically developed. "Teach me Summer Day," says Pestalozzi, "that man, formed from the dust of the earth, grows and ripens like the plant rooted in the soil." Pestalozzi "psychologized education" by basing all his methods of teaching on the laws which regulate the development of the human mind. He proved conclusively that in every child, however poor and degraded, there are faculties and feelings which only need to be developed to convert the pupil into a thoughtful and capable child. The importance of Rousseau's and Pestalozzi's maxim "Follow Nature" may be exaggerated. To follow Nature blindly on all occasions would be to ignore the lessons which the accumulated experience of mankind teaches. But in view of the fact that native teachers totally neglect the 'natural' system, we may well afford to dispense, for the present, with this consideration. In his account of his work at Stanz, where he reclaimed and educated in the truest sense of the word a number of outcast orphans, Pestalozzi says, "I believe that the first development of thought in the child is very much disturbed by a wordy system of teaching, which is not adapted either to his faculties or the circumstances of his life. According to my experience, success depends upon whether what is taught to children commends itself to them as true through being closely connected with their own personal observation and experience."

In connection with this statement take the way in which the two important subjects of Geography and History were taught by

Pestalozzi. In both he appealed directly to the observation and personal experience of the children. As an introduction to geography, or rather as forming the basis of that subject, Pestalozzi saw that the topography of the school and its surroundings was thoroughly mastered. The children were made first to observe closely, then to state what they had seen, and finally they were encouraged to formulate definitions of what they saw and described. They next reproduced in sand, or clay, or on slate or paper, what they had thus noted. Later on whole days were devoted to excursions far from the school, that they might see and observe the origin of rivers and lakes, the form of hills and valleys. On the way to and from the school, they were taught to observe Nature as she appears to those who will take the trouble to search for her latent beauties. The simple flower, the gorgeous butterfly, the bird on the wing, were made the subject of observation and conversation; and thus Pestalozzi, himself without any systematic knowledge of natural history, was enabled to train up in his pupils the power of observation, and to instil into them the desire for the further prosecution of those studies. In India we especially need to remember that the true teacher is not he who can impart the most information, but he who creates the appetite for knowledge and the power to assimilate it. Pestalozzi himself knew very little of the facts of geography, but he knew the secret of its science. Karl Ritter, who sat at the feet of Pestalozzi, and who afterwards did noble work for Germany, said, "Pestalozzi knew less geography than a child in one of our primary schools, yet it was from him that I gained my chief knowledge of this science; for it was in listening to him that I first conceived the idea of the natural method." Viewed in this light what a parody is the so-called teaching of geography in this country. As a student said the other day, "We are supposed to know the geography of the world for the University Matriculation Examination, but we know nothing of the geography of our immediate neighbourhood." It may be retorted that this statement simply illustrates the prevailing absence of the faculty of observation on the part of the natives of this country. But who is to blame for its continuance? What does our teaching do to create this all-important faculty? It seems incredible, but is none the less a fact, that such a necessary thing as a map of the school district, or of the city of Madras and its surroundings, does not exist

for school purposes. Not one boy in a hundred can state the relative position of his school or district. Not one boy in a thousand can give anything like a sketch or outline map of his district and of the Madras city. And yet it cannot be too persistently insisted on that such knowledge forms the very foundation of the science of geography. Even a map of the country, the geography of which is being taught, is thought by some teachers to be almost superfluous—the black board as a means of illustrating topography to be quite so. So long as the pupils know the words of the book in which they will be examined what matters anything more. Outside information and illustrations bearing on the subject in hand are not only looked on as superfluous, but even as distracting in view that the pupils will be examined in the text-book and that only.

As regards history Pestalozzi worked on the same principle. He based his teaching of history on that of the village, from thence to the canton, and so to the history of Switzerland. To Pestalozzi the credit is due of putting in practice what is known at teaching history *backwards*. There is more to be said for this system than is generally supposed. Whatever may be the most desirable practice as regards advanced students, we state it as our opinion that teaching history *backwards* is only the true method in commencing the study of history with young children. We must be consistent as regards the Pestalozzian principle of proceeding from the known to the unknown, from the concrete to the abstract. Young children must first know that they are at school as a duty they owe to themselves and to the State; they must know the functions of the policeman, who employs him and why, how the village or the town is governed, the functions of the Governor of the Presidency, who represents the Queen Empress in India, how the Queen of England came to have control over the destinies of a vast country so many miles from the centre of government, and so on. What a farce and an injustice it is to take a young child commencing the study of history back to some arbitrary date, which, if history is to be treated scientifically, has not the slightest pretension to be the starting point of the organic history of the country. The date introduces a period with which neither the pupil nor the teacher, in many cases, can have any sympathy or real knowledge. The teacher thinks he is doing his duty, even well, if the abomination of the list

of names and insignificant details, which go to make up the substance of most text-books, is learnt off by heart by the pupil. And in India the evil is accentuated a thousand times, since young boys, with the most elementary knowledge of the English language, are taught, word for word, out of the English text-book prescribed by the Department. If a teacher gets through half-a-dozen lines or so, in this fashion, he considers he has done good work. And this forsooth! is called teaching history. Of all subjects history most needs to be taught in the vernacular to all but the most advanced students. We take our young children to a period which has no meaning for them, we dose them with unintelligible names, and, to add to all, we teach them such a subject as history in a language in which they can neither talk nor still less think! And we are surprised that no apparent good comes of it all! We are surprised that so few prosecute the study of the history of their country, so rich in materials, when they leave school or college! Folly itself can go no further! Many striking examples might be given, if space allowed, of the way in which the teaching of other subjects in this country directly violates the principles laid down by Pestalozzi. Enough, however, has been said to show that a radical change is necessary in our method of teaching, if we are to reap anything but the minimum benefit from Education. Our Normal Schools and Training Colleges may do much to remedy the evil; but little permanent good will be effected, unless the methods acquired in such institutions are enforced by school inspectors who are themselves adepts in the knowledge and application of such methods.

Our text-books, too, have much to answer for in this respect. We do not wish to emulate Pestalozzi in his boast that he had not read a book for forty years. But when we see teachers and pupils such slaves to the words of the text-books, disregarding what little spirit and originality these books contain, knowing little of the real subjects of which such books pretend to deal, we are tempted to cry out against the use of them altogether, and to pray for the advent of an Indian Pestalozzi who shall teach us how "to develop the child and not merely train him as we train a dog, and as so many children in our schools are trained."

AGRICULTURAL EDUCATION IN THE MADRAS PRESIDENCY.

In their Educational Despatch of 1854, the Court of Directors gave utterance to the following memorable words:—"No single advantage could be afforded to the vast rural population of India that would equal the introduction of an improved system of agriculture." The Despatch, so far as it relates to agricultural education, remained a dead letter till Lord Mayo, who is said to have "farmed for a living and made a livelihood out of it," came out to India as Viceroy. His practical mind, well nurtured with the best knowledge of scientific agriculture, at once saw that Indian agriculture was yet in a primitive state, and that the light of science when made to shine on the back-ground of Indian agriculture would not fail to produce the same results that it had done in Europe. With the approval of the Secretary of State, who entirely concurred with the views of Lord Mayo, a specific policy was laid out, and in 1870 a Department of Agriculture and Land Records was organised. The Government of Madras, in fact, stole a march over the India Government. In 1863, Sir William Denison openly declared that the agricultural condition of the Madras Presidency was far from satisfactory, that it had suffered much by a continuous reckless cropping, deficient manuring, destruction of forests, &c., &c.; and that a "Model Farm" to demonstrate "an improved system of agriculture" was a desideratum. Accordingly, a model farm at Saidapet was started, and in 1868, Mr. Robertson, a specialist of English reputation, was appointed to conduct its operations. Through the writings of Sir Arthur Cotton and other friends of South Indian agriculture, Government was forced to admit that the time had come for an organised attempt on its part to raise the status of agriculture, and to place the improvements within the sphere of an ordinary ryot. It was therefore agreed that the working of the Central farm at Saidapet should be extended to the Districts by opening District farms. It now became clear that hands were required to carry on work at District farms, and the Board of Revenue proposed the establishment of an Agricultural School at Saidapet for training overseers and labourers for the proposed District farms.

Mr. Robertson, on being consulted, pointed out that the overseers, who were trained as apprentices to become competent to carry on work at the District farms, should receive complete training in agriculture and allied sciences as well as in field operations, and that any half-hearted attempt would only end in utter waste of time and money, and make a "degraded husbandry" more degraded still. He strongly advocated a scientific education in agriculture, and urged that "example" farms should succeed the educational scheme. According to him the education should assume three stages of development: (1) "the instructional stage in which young men were to be trained for observation and experimental enquiry and deduction; (2) the *experimental* farm stage in which the trained men were to ascertain facts as a basis for practice; (3) the *demonstration or example* stage in which the data and experience of the *experimental* farms should be disseminated by example on model farms." Mr. Robertson pointed out that for the last stage "the country was not intellectually ripe, while men were entirely wanting for the second stage; hence the preliminary to further work was the first stage both for the training of Superintendents as well as other classes of students." He proposed a regular College at Saidapet with farm work for students to create a taste for agriculture, "because a student can become a farmer in no other way than by engaging for a considerable time in the actual work of a farm." The Board of Revenue was scared by this elaborate scheme and hit upon a peg to hang their sermon of dissent on. The peg was the expression "degraded husbandry" unwittingly used by Mr. Robertson in his scheme. The Board said, with much show of reason, that shortcomings of husbandry were due to want of means, and not to a *want of knowledge of principles*, and that the "degraded husbandry fed a teeming population, besides providing exports and revenue." With such stock arguments and self-sufficing pleas the Board threw Mr. Robertson's scheme into the limbo of impracticable suggestions. The Government, however, ruled that though Mr. Robertson's scheme was "beyond present requirements," a less ambitious one was feasible, and sanctioned the opening of a College at Saidapet, "an institution designed to afford instruction in the science of agriculture, and in the practical applications of sound principles in conducting the ordinary agriculture of the country." The District

276

farm scheme, which was a part of the general scheme for imparting agricultural education, was left out of consideration, and the Saidapet College was started in 1876. The Central farm at Saidapet continued to work as an educational aid to the College till September 1885, when at the suggestion of Mr. Wilson, the then Director of Agriculture, it was abolished, as the Government considered its work not at all satisfactory. A small farm was, however, handed over to the College, in September 1886, for educational purposes. The present farm at Saidapet was thus constituted.

The foregoing short history of the agricultural education in this Presidency clearly indicates the lines on which the Agricultural Department has worked. There was no continuity of action, no matured plan. Everything was a jumble of erroneous calculations, and too sanguine expectations. The condemnation hurled on Mr. Robertson by Mr. Wilson was exactly like "giving a dog a bad name and then hanging it." Mr. Nicholson, Secretary of the Agricultural Committee, has admirably summed up the vicissitudes of agricultural education, and I take the liberty of quoting it *in extenso*. "Saidapet, at first a simple model farm, was erected first into an experimental and model farm; then (in scheme only) into a Central farm with (proposed) District experimental farms; the want of skilled Superintendents for the proposed farms then suggested scientific instructions, which in turn developed in form till there emerged a complete and high class public Agricultural College, the graduates of which were to disseminate their knowledge over the country; in other words, the old idea of the educational despatch of 1854 in the matter of literary education was repeated, viz., that a high education should be given to the most worthy recipients through whom knowledge should filter downwards to the masses. The idea of the District farm had largely dropped out of sight, apparently in the hope that the College graduates would farm their own or others' lands and thus spread an improved practice. It was forgotten, however, that District farms were absolutely necessary for experimental inquiry into the little known methods and condition of the ryot, and for the practical training of the graduates who would be no more fitted for commercial farming without further and lengthened practice in working a farm under good supervision, than a student of engineering would be fitted to design and build a railway bridge

without workshop and practical experience. Experimental farms standing alone without a system of instruction, or mere College instruction, without thorough farm training, would be equally useless." There has been, in fact, "no planned-out design, no foundation of enquiry, no continuity of structure; the organism of 1865, conceived in error, born by chance, bred by accident, developed in starvation, guided by change, never had any vigorous vitality." The Government of Lord Connemara, seeing the unsatisfactory working of the Agricultural Department, appointed a Committee in September 1888 to make "a comprehensive inquiry into the constitution and operations of the Agricultural Department with the view of ascertaining what practical good it has done and is doing and what good it might do under other conditions." The Committee collected a mass of information and submitted its report on the 5th May 1889. Regarding the future agricultural education there was a consensus of opinion amongst the members of the Committee that "a College of Agriculture is absolutely essential for training of agricultural experts and teachers, and for the education of Veterinarians." They further suggested that "there should be two departments in the agricultural branch of the institution, in one of which men should be educated in agriculture and its allied subjects, mainly with the view of becoming trained agriculturists and superior teachers of agriculture; the other in which men should be educated to be teachers of agriculture in elementary and, perhaps, in secondary schools." Having obtained these agencies for imparting agricultural education to the upper and lower grades of schools, the question then was how to carry out a scheme so as to meet the needs of the agricultural community. The Committee said that "the first requisite for the dissemination of agricultural knowledge is the extension of higher, secondary and primary education amongst the land-holding class." The efficiency of the Agricultural Department depends upon the intelligent co-operation of people interested in land, and the intelligent co-operation can be expected only when the people are taught to understand the defects in their system. The education should comprise not only reading, writing and reckoning, but also demonstration and experiment whereby people are made to think and observe.

(To be continued.)

"SPECULUM."

277

INDUSTRIAL EDUCATION FOR EURASIANS.

That Industrial Education has been much neglected in this Presidency may be seen from the comparatively small numbers who receive instruction in the different handicrafts. In the whole of the Madras Presidency the total number of pupils receiving instruction on the 31st March 1890 was 1,758, and of these only 84 were Europeans and Eurasians. Of course, these numbers represent only those who attend recognized Industrial Institutions. Many native boys are instructed in some kind of trade under the direct supervision of their own fathers, but 84 represents very nearly all the Europeans and Eurasians receiving instruction in any way whatsoever: very few, if any, pick up a trade in private firms and workshops. There is no doubt that Eurasian parents, especially those of the well-to-do class, have not encouraged—in fact they have discouraged—the learning of some suitable handicraft by their children. Their dislike to Industrial Education may be attributed to a feeling of false pride. They do not seem to realize the dignity of manual labour, and frequently allow their sons to misspend their time at home rather than have them learn a trade. In many cases children are not able to attend suitable institutions for instruction. In Madras there are only two Industrial Schools, the Ordnance Artificers' School having been lately abolished. These two schools are the Industrial School at Black Town, and the Industrial section of St. Patrick's Orphanage at Adyar. Of the Ordnance Artificers' School alone, may it be said, that the instruction was efficient and satisfactory. The other two schools are intended for orphans only, and from the Inspection Reports it may be gathered that in schools opened for philanthropic purposes, the instruction is neither scholastic nor industrial, but a useless smattering of each. So that in Madras, Eurasian boys of the well-to-do class are quite shut out from learning a trade. Government has done much to encourage education among the Muhamedans, and it is to be hoped that something will be done to encourage Industrial Education among Eurasians—a class which has as great a claim on the Government as any other community. If an Institution were to be opened in Madras, it is certain that a very large number of Eurasians would take advantage of the opportunity to have their sons instructed and thoroughly qualified for a trade, instead of, as at

present, being forced to allow them to become clerks. Mr. Hanna's advice, given to them on the 7th October, could then be followed, and boys would be able "to devote their attention to becoming first class artizans, and abandon their place as under-paid clerks."

The poorer class of Eurasians, however, receive instruction in Carpentry, Boot and Shoe-making, Blacksmith's work, &c., but, unfortunately, the school education which the majority of these have received is so slight that many of them do not know how to read or write. To be of any use at all, therefore, it is necessary that school education and instruction in a particular handicraft should go together. Then again it is not always safe to allow boys of fourteen and sixteen to associate with grown-up men. They soon learn to copy their ways, and very frequently learn the habits of the bad and rough. Very frequently too, a boy is taken out of school where he has had five easy hours a day, and is sent to work. He has very often to stand all day, the work is harder, the hours longer, the result being that he soon gets tired and very often gives up altogether. Hitherto it has been the practice to apprentice only such boys as seem entirely unfit for a scholastic career. Boys of moderate attainments are allowed to go on with their studies, and seldom attain to anything like a moderate position in life; one reason perhaps, being that parents fear that the beginning of Industrial Education is the end of Scholastic Education. If, therefore, half the day were spent in learning—Reading, Writing and Arithmetic—or what is better known as the three Rs, and the rest of the day devoted to the particular handicraft for which the boy is best fitted, not only would he receive instruction in general and Industrial Education, but the strain on his energy would not be so great. In such an institution to which we have referred, a number of subjects might be taught such as Geometry, Drawing, Mensuration, the Steam Engine, Surveying and Levelling. In Industrial Education, taking into consideration Mr. Hanna's remark that Eurasians are better fitted than natives for certain handicrafts, the following might be suggested—Turning, Blacksmiths' work, Boot and Shoe-making, Fitting, &c. If such an Institution were opened, not only would it supply a long-felt want to the Eurasian community, but it would also be the means of improving the social condition of many of that class. Such an Institution, I am sure, would not only meet with the support of the parents who would then have the opportunity of

having their children instructed in both departments of education; but it would also, besides being the means of improving the scholastic condition of the poor, be a boon to the artizan class of the Eurasian community. The Madras Railway Company has opened schools at large Stations for the benefit of the children of its employes, and as hereafter most of these children will follow in their fathers' footsteps, a great boon would be conferred on these children, if after, say, twelve years of age, they were allowed to go into the workshops for instruction during the afternoon; the forenoon being spent at school.

H. W. S. C.

DECLINE OF MATHEMATICS.

The thirty-fifth annual report of the Syndicate of the University of Madras (1890-91) has an appendix which is very interesting to those engaged in the 'manufacture' of Matriculates and F.A.'s in our Schools and Colleges. It contains the report of the Chairman of the Board of Examiners in Mathematics (1882-90) based upon the opinions of the various Examiners on the causes of the decline in the knowledge of that subject shown by the candidates for the F.A. Examination. The Examiners also make suggestions for improving the low standard of attainments in that subject. There is no doubt that the low standard of the Matriculation Examination has much to do with the decline in the knowledge of this subject shown by F.A. candidates. Now that the standard of the Matriculation has been raised, can better results be expected in the future in the F.A. Examination? All the Examiners who are also Professors of Mathematics in the more important first grade colleges of the Presidency proceed on the assumption that the subject of Mathematics is taught in the F.A. classes by the right sort of men. The experience of these gentlemen is confined to their own colleges, where they either directly take part in the teaching of that subject or supervise the work of their assistants. Whether the teaching is as efficient in the numerous second grade colleges which have of late been springing into existence, neither the report of the Chairman nor the lengthy replies of the Examiners throw sufficient light on the question. There are Colleges and Colleges. Where cheapness is aimed at by those responsible for the management, the services of the best men are

not always utilised for the teaching of this most important subject. Expediency often compels a graduate who has not made mathematics his special study to unravel the mysteries of Euler's Theorem and exponential Series. We think that so long as such things are permitted to continue, so long as the University does not see to the fitness of the lecturers employed in the second grade colleges, neither the raising of the Matriculation standard nor the lightening of the burden in the junior and senior F.A. classes will tend to produce any appreciable improvements in the results of the F.A. Examination.

The revised University Curriculum for the B.A. Degree Examination, aiming at *depth* in various branches of knowledge, has opened a fair field for selecting competent men to teach the various subjects of the F.A. Examination. Every year the pass lists of the University contain between 30 and 40 graduates who are certified to possess a very fair amount of knowledge in mathematics. It so happens that only a few of these men take to the profession of teaching; fewer still are employed to teach the subject which they have made their special study. Hence the teaching of this subject in several of the important Colleges in the mofussil has of late deteriorated.

The bye-laws relating to the F.A. Examination have undergone a slight change in the direction of making the candidates devote more time to the subject or subjects for which they have special liking. But the authorities should have gone further.

Cannot mathematics be made optional in the F.A. Examination as it used to be some years ago? Can it not be made to alternate with some such subject as Logic without giving up its educational value? A student having, by means of the Matriculation Examination, proved his capacity to benefit by an university course, should at once be allowed to specialize. A man, with no capacity or liking for mathematics, should not be compelled to offer that subject in the F.A. Examination. As it is, such a man has no hope of passing his mathematical examination with credit, his sole ambition being to obtain the requisite minimum number of marks. That minimum, being low, is a direct incentive to mediocrity of performance to such a student, while it is sufficiently high to take off his attention from some subject for which he has a liking and an aptitude.

THE LATE LIEUT.-GENERAL MACDONALD. IN MEMORIAM.

[Lieut.-General Macdonald, Director of Public Instruction, Madras,
Presidency, 1875-1880. Died 3rd February 1891.]

IN MEMORIAM.

Rest from thy labours, Soldier of the Cross!
Of earthly sorrows thou hast had thy share,
But courage nerv'd thee to sustain their weight,
Encountering Death itself with visaged calm,
Rude though its onslaught in that fatal hour!
Truth was thy guiding principle in life,
Mild was thy nature, but thou could'st be firm,
Although in anger thou ne'er dealt'st a blow!
Courage that's moral thou didst e'er display;
Kind acts, inspir'd by thy true loving heart,
Endear'd thee much unto the world at large,
Nor didst thou shrink from work however hard!
Zeal in each task which thou didst undertake,
Impell'd thee unto many a generous deed,
Ever neglecting self, all petty claims
Mankind oft urge, excusing selfish acts.
A love of justice was thy strongest point,
Condemning every subterfuge as mean,
Dealing with each case as it came to view!
Obeying meekly that dread call of Death,
Not e'en a murmur issued from thy lips.
A living Poem seem'd thy life to all!
Long shall thy memory live in loving hearts,
Depress'd at present by their sense of woe!

PRIZE ESSAY ON THE EFFECTS OF DEFICIENT RAINFALL ON COMMERCE AND ON PUBLIC HEALTH.

The offer we made in our last issue, of a prize of Rs. 10 to be awarded for the best essay on "*The effects of deficient rainfall on Commerce and on the Public Health*" has been well responded to from different parts of the country. The most meritorious paper received is that by K. S. Chandrasekharam, B.A., Triplicane, Madras, who has consequently won the prize. We give the paper below.

There were several other papers of much merit, and those from A. A. Frederick, V. Srinatsanka Row, K. Ramunni Menon, H. W. Seelna Callaghan, and P. J. Abraham deserve special commendation. The essay from the last mentioned competitor, however, better deserves the name of "sermon," and, as such, is remarkably good. But while Mr. Abraham's facts are unquestionable, his deductions are very faulty.

We sympathize with those competitors who have failed to secure the award; but as there was only one prize, there could of course be only one recipient of it.

THE PRIZE ESSAY.

In describing the effects that a deficiency in the normal rainfall has on commerce and on the public health, I must be understood as speaking with special reference to India, for it is chiefly in hot climates that the presence or absence of rain would make an important difference in the material and physical condition of the people. I shall, therefore, base my remarks mainly upon the lessons furnished by the present condition of this country, which seems to be almost on the verge of a disastrous famine.

I. The most evident consequence of deficient rainfall is, of course, a deficient harvest. The cereals (especially what are called the "wet crops," or grains that grow only on wet soil) require for their growth an abundant supply of water. This, in ordinary seasons, they obtain either directly from the periodical rains, or from canals and tanks. In a season of drought the first source is absolutely cut off, and the second is diminished to a very large extent: every bucketful of water is precious, and the supply to each field is regulated by hours and minutes. That dreaded pest of Indian agriculture, the locust, breeds in very large quantities in seasons of drought. Swarms, miles long, of locusts run their destructive career from field to field, and finally consume the crops already drooping for the want of rain. The effect on prices in the market is immediate. Rice, for instance, of the best sort ordinarily sells at

9 measures a rupee; but cannot, at the moment I write, be had at more than 5 or 6. The poor are the first to suffer; and consequently labour becomes dearer and wages rise. Besides the food grains, cotton, sesamum and other raw produce suffer seriously, not only in the total out-turn, but also in quality. Add to this the fact that this state of things tempts manufacturers and tradesmen to adulterate them; and it is easy to see that cloths, oil and other articles, so far as they depend on such raw produce, must be comparatively inferior in quality.

It has of late been discovered that the existence of forests on a large scale has an important influence on rainfall, so as to induce the fall of a larger quantity of it. Apart from this circumstance, I wish to refer to the converse effect—namely, that of rainfall on the growth and extension of forests themselves. A continued absence of rain, if persistent enough, stunts the growth of trees and prevents the formation of new plants. The supply of fuel will consequently diminish, and its price will rise. As India is not a coal-producing country, at least not yet to any large extent, most manufactures are carried on, and most machines worked, with the aid of wood as fuel. The diminished supply and dearer price of this indispensable article will cause new manufactories to wind up their concerns; and even the old and firmly established ones will turn out a lesser amount of work and raise the price of the articles they do produce, if their business is not to be carried on at a loss. It is scarcely necessary to say that this is also partly due to other causes than the failure of fuel—for instance, the diminution in the supply of raw produce (where such raw produce is the material worked on), and the necessity of paying higher wages to the workmen. Even where iron, brass and other minerals form the basis for manufacture, the increased cost of working mines, smelting and other operations, due to increased wages and cost of carriage, tends to much the same results.

Again, in times of distress, the usual supply of fodder for cattle fails; and unless reserved forests are thrown open for cattle to graze in, their sufferings are intense, and they die off by hundreds from disease, hunger, heat, and over-work. Besides the effect this has on the market price of the cattle themselves, it influences the price and quality of milk and ghee.

There remains to be considered under the present head another effect of deficient rainfall, viz., that on communication and conveyance by water. Though very few Indian rivers are navigable, the canals leading from them serve not only for purposes of irrigation, but also for the conveyance of articles of commerce between places having no railway communication or where conveyance by railway would be

costlier. In the absence of the usual amount of rainfall, the canals dry up and traffic by water is greatly retarded.

I now proceed to the second branch of our subject, that relating to public health as affected by the want of rain.

II. The result most dreaded both by individuals and by Government is Famine and its attendant starvation. It is notorious that the labouring poor of India are unable at the best of times to keep off the wolf from the door, their daily earnings barely sufficing to give them one full meal a day. In times of distress they have to resort to indigestible substitutes for rice—ragi, 'kumbu' or 'chulam,' stale kanji doled out by charity, or leaves and roots picked up at the roadside. Even of these make-shifts many of them do not obtain a sufficient quantity; and hundreds die of starvation and disease who had been humble but useful wheels of the social machinery. Those who survive are bereft of strength and energy, grow stunted themselves, and transmit their feebleness to their children. The natives of India have never been remarkable for attention to sanitation; and many of their habits, particularly their use of water, are very objectionable. Even large streams are polluted by the washing of clothes or cattle in them, and by the admixture of filth and the contents of sewers. Accumulations of animal and vegetable refuse are made on all sides of tanks and wells, and water from above allowed to run into them. When these are nearly dried up for want of rain, the water, previously bad enough, becomes saturated with all the seeds of disease and forms an effective channel for its propagation. Hence cholera and other epidemics rage most at such a time, especially among the weak and emaciated poor. The purifying influence, too, of rain on the atmosphere and on sewers and drains is sorely missed; and man and beast are ever in an unwholesome state of reeking perspiration. The dearth of rain causes already mentioned, of ghee, milk and buttermilk, which are indispensable adjuncts at the meal of every Hindu, rich or poor, gives rise to diseases of digestion; and the want of the accustomed supply of these articles causes an amount of inconvenience which may in itself give rise to disease.

Such are, then, some of the principal results which deficient rainfall produces on commerce and on public health; and accompanied as it is by pestilence and famine, it forms one of the most terrible of those events that, periodically raging on earth, carry off a large number of its inhabitants, and thus, according to a modern school of philosophers, solves some of the difficulties of the over-population question.

K. S. CHANDRASEKHARAM, B.A.

[Mr. K. S. Chandrasekharam, B.A., is 22 years of age, is a student of the Law College, and is reading for the B.L. and M.A. degrees.]

RECENT CHANGES IN THE F.A. AND MATRICULATION EXAMINATIONS.

[We congratulate Mr. Cook on the Report for 1890-91 of the Central College, Bangalore. His general remarks on the recent University changes are of much value, and accordingly we give them in *verbatim* for the benefit of our readers.—Ed: M.J.E.]

The uncertainty of University Examination results is very much like that of Horse-racing. In our University races, as in the other, much depends on the condition of the course; and comparatively trifling causes may make many come to grief, so that the speculations of even the most experienced are entirely out. One year we have excellent results in Logic and History, and next year with the same teacher, and equally careful teaching, our results in those subjects are much worse. Were they worse in every subject, we should put it down to the class being inferior as a whole; but when this is not so, the only admissible explanation is the element of chance whereby particular papers set happen to suit or not suit particular institutions. And the only possible cure for the unfairness that may thereby arise is the making of the passing standard somewhat more elastic. For years I have hammered away at this point; and I am glad to say that the University has recently modified this F.A. Examination somewhat in the direction I have all along advocated—so that the present F.A. standard will remain for only one more examination. Indeed the University seems to me to have gone too far in the direction of lowering the F.A. standard. It is said that in a multitude of counsellors there is wisdom; but I humbly think that all that was needed was—not to reduce the F.A. standard as has been done by the omission of the 11th book of Euclid and other parts of the Mathematics course that are most valuable from a practical point of view; not to throw out Logic and English History in the summary way that has been done—but merely to introduce a rule whereby students who have done well on the whole but shown weakness in one or even two particular subjects may be allowed to pass this merely intermediate examination on the strength of their general intelligence. Still we are thankful for the changes that have been made—as there can be little doubt that for years the F.A. strain has been too great for the physical well-being of our students.

As regards the Matriculation Examination Mr. Cook says:—What may happen next year (1892) when the group of subjects now known as General Knowledge, viz., History, Geography, Physics and Chemistry,

is divided into two groups, and a separate pass demanded by the University in each group I should not like to prophesy. We shall have to pay special attention to our History and Geography; for these are badly taught and badly learnt almost everywhere in this country. Our Matriculation passes of last year coincided almost exactly with our Class results for the year. Not a single boy passed the University who had not passed with us and been recommended for the examination. Hitherto we have been practically unable to prevent ill-prepared boys from appearing for this University Examination; but from next year all this will be changed, and I anticipate the best effects on the discipline and teaching in High Schools.

It is desirable that I should here point out the special features of the new Matriculation scheme that will come into operation at the end of the current year, as the effects of this scheme on all High School Education and on all our Colleges will be very far-reaching.

1. From next year the University will practically control all High Schools by admitting to its Matriculation Examination only pupils of High Schools recognized by the Madras Education Department, or certified by the Government of any Native State to be conducted in substantial accordance with the Madras Educational Rules.

2. Each Matriculation Candidate must send a certificate from his headmaster that he has attended some recognized High School or Schools from the commencement of the current year, that his conduct has been satisfactory, that he has completed the course of study prescribed for the several classes of a High School, and that he is, in the opinion of his headmaster, qualified to enter on a University course.

3. The Standard in every subject will be raised very much.

(a) In *English* the minimum will be raised from 33 to 40 per cent.; and there will be no special Text-book. There will be a more general test than hitherto and by means of three papers, (1) a three-hours' paper on the grammar, structure, and idiom of the English Language; (2) a two-hours' paper on Paraphrase and Composition; (3) a one-hour paper on Vernacular-English translation.

(b) In *Vernacular* the minimum will be raised from 33 to 35 per cent.

(c) In *Mathematics* it will be raised from 25 to 35 per cent.; also the Algebra paper will be a two-hours' one, and will include Quadratic Equations.

(d) In *Physics and Chemistry* a separate pass will be required, and a minimum of 35 per cent. with a two-hours' paper in each.

(e) In *History and Geography* also a separate pass will be required there will be two papers (each 1½ hour) on English and Indian History, and a two-hours' paper on Geography; and a minimum of 35 per cent.

(f) On the whole a minimum of 35 per cent. instead of 33 per cent. will be required.

For the next two or three years there will, in all probability, be a great slaughter of Matriculation candidates; yet I most cordially agree with all that the Senate has done, and consider that the changes now adopted will have the most beneficial effect in every way. Year after year we and almost all other affiliated Colleges have had to report an F.A. pass of about 33 per cent., that is, two-thirds of our College F.A. work going for nothing; and all because half of our F.A. students ought not to have passed Matriculation at all, and are unfit to assimilate the higher teaching. As F.A. Text-books and Fees cost much more than Matriculation ones, it is the greatest kindness to the candidates themselves to keep them from attempting the higher course till they are really fit for it.

Another great benefit of the new Matriculation Scheme will be that it will render the compulsory portion of the Upper Secondary Examination quite unnecessary; and I hope and expect that the U.C.S. Commissioner will now accept the Matriculation pass as amply sufficient for the Upper Secondary course—the distinctive feature of which ought to be the encouragement of technical education subsequent to the laying of a good general foundation. Unless there is some such compromise—I do not believe that the Upper Secondary Examination can prove in the future other than it has proved for the first two years of its existence—a miserable failure.

This raising of the High School Standard will necessitate the extension of the High School (or Secondary School) course to three years, and the division of that department into three classes instead of two as at present. But this will be a great benefit because few pass the Matriculation now with only two years in that department; and those few generally work under high pressure so that in many cases their physical and mental energy is exhausted by the effort. They so fall off in the College classes that a year gained in youth proves only to be a year lost in adolescence.

HISTORY OF EDUCATION IN THE MADRAS PRESIDENCY.

By S. SATTIANADHAN, M.A., LL.B., Cantab, Assistant to the Director of Public Instruction, Acting Professor of Philosophy, Presidency College.

I. EDUCATION IN MADRAS PRIOR TO 1854.

(Continued from our last.)

There is no doubt of the fact that the decision arrived at by Lord Bentinck was entirely due to the famous Minute of Macaulay's Minute. Macaulay, which marks an era in the history of English education in India. In the Minute, Macaulay, in his characteristic way, deals with every one of the arguments advanced by the advocates of the oriental mode of instruction. One of the chief arguments of the opposite side was that under the Charter of 1813 the public faith was pledged to the prevalent system and that a sum was set apart under the Charter, "for the revival and promotion of literature and encouragement of the learned natives of India, and for the introduction and promotion of a knowledge of the sciences among the inhabitants of the British territories." Macaulay replies:—

"It is argued, or rather taken for granted, that by literature the Parliament can have meant only Arabic and Sanskrit literature, that they never would have given the honourable appellation of "a learned native" to a native who was familiar with the poetry of Milton, the Metaphysics of Locke, and the Physics of Newton; but that they meant to designate by that name only such persons as might have studied in the sacred books of the Hindus all the uses of cusa grass, and all the mysteries of absorption into the Deity. This does not appear to be a very satisfactory interpretation."

But even supposing that the grant of a lac of rupees was set apart for the encouragement of the study of Arabic and Sanskrit, should the grant be continued for the same purpose, those languages having become useless: "We found a sanatorium on a spot which we suppose to be healthy. Do we pledge ourselves to keep a sanatorium there, if the result should not answer our expectation? We commence the erection of a pier. Is it a violation of the public faith to stop the works, if we afterwards see reason to believe that the building will be useless?" As for the argument regarding the importance of the study of Arabic and Sanskrit Literature Macaulay writes:—

"I have no knowledge of either Sanskrit or Arabic. But I have done what I could to form a correct estimate of their value. I have read translations of the most celebrated Arabic and Sanskrit works. I have conversed, both here and at home, with men distinguished by their proficiency in the Eastern tongues. I am quite ready to take the oriental learning at the valuation of the Orientalists themselves. I have never found one among them who could deny that a single shelf of a good European library was worth the whole native literature of India and Arabia. The intrinsic superiority of the Western literature is, indeed, fully admitted by those members of the Committee who support the oriental plan of education."

Macaulay sums up in conclusion:—

"I think it clear that we are not fettered by the Act of Parliament of 1813; that we are not fettered by any pledge expressed or implied, that we are free to employ our funds as we choose; that we ought to employ them in teaching what is better worth

knowing than Sanskrit or Arabic; that the natives are desirous to be taught English, and are not desirous to be taught Sanskrit or Arabic; that neither Sanskrit nor Arabic has any peculiar claim to our engagement; that it is possible to make natives of this country thoroughly good English scholars, and that to this end our efforts ought to be directed.

Though Macaulay's Minute had direct reference to education in Bengal, still it was not without its effects on education in Madras as well. The Madras Government was advised by the Government of India to expend Government funds almost exclusively on English education, and chiefly on higher English education. The suggestions of the Madras Board were also disapproved generally by the Committee of Public Instruction at Calcutta and by the Government of India. They considered the Tahsildaree and Collectorate schools in which rudimental instruction in English was superadded to tuition in the vernacular dialects as nothing better than the existing village schools—a class of schools with which the Government, it was thought, should not have interfered. One of the main features of the Madras scheme, viz., that of improving and encouraging by Government supervision and rewards the indigenous village schools was entirely overlooked by the Supreme Government and was interpreted as a "tendency to repress the humble but voluntarily supported Seminaries of the villages." The Calcutta Council also doubted the propriety of opening two English Seminaries in Madras: one a Normal school for training teachers, and a distinct English school for general pupils. They proposed instead a single English College at the Presidency at an annual cost of Rs. 30,000 and ten Provincial Colleges at a total annual cost of Rs. 50,000. As it was found, however, that the Madras Government was unable to meet such a large outlay, it was proposed that the aid given to Tahsildaree and Collectorate schools should be withdrawn, and that the Madras Board should concentrate all their available funds in the establishment of an "English College at the Presidency, either distinct from the Central school, or in connection with that institution," and that any surplus fund that might remain, should be employed in providing competent English instructors in schools that might be established at principal stations in the interior in communication with the Board of Public Instruction.

On the receipt of the Bengal despatch in 1835 it was resolved to abolish the Tahsildaree and Collectorate schools and to entrust the affairs of education to a new Board to be designated the Committee of Native Education. The Committee consisted of five members, with a Member of Council as President; the members being one of the Presbyterian Presidency Chaplains, the Mahratta Translator to Government, the Deputy Judge Advocate of the Presidency Division, the Honorable Company's Astronomer and the Honorable Company's Solicitor. In their instructions to the Committee, the Government made no mention of the English College proposed by the Government of India; nor of the necessity for providing the means of instruction at the Presidency in the higher branches of education, and the Committee was called

upon only to recommend measures for the establishment of a Normal school at Madras for the training of teachers. The Committee made some elaborate proposals. Of these the most important were (1) the establishment of four English schools in the suburbs of Madras; (2) the establishment of a Normal class for training teachers in connection with the best school at the Presidency, whether a Government school or otherwise; (3) the establishment of a College, as soon as the materials for such an institution were to be procured, (4) the award of premiums to the teachers of the best conducted schools. The only part of the plan which they recommended for immediate adoption was the first, viz., to start four elementary schools. "The establishment of either a Normal class or a College the Committee considered was premature, owing to the fact that "there were probably not a dozen natives who were capable of profiting by a College education, or to express it more definitely, who were capable of writing half a dozen sentences of idiomatic English on a given subject, or of reading a page of Milton with intelligence." It was proposed that each of the four elementary schools should have a European Head Master, with a salary of Rs. 130, Rs. 20 for house-rent and half the school fees, and a Native Assistant on a salary of Rs. 50, and that from each pupil a fee should be exacted of half a rupee per mensem, "to ensure regularity of attendance and keep up an idea of the value of education and to leave room for competition on the part of enterprising native teachers.

(To be continued.)

HINDOO MATHEMATICS.

By LEON DELBOS, M.A.

(From The London Journal of Education.)

(Continued from page 339.)

Now we will enter into a few particulars concerning the mode of performing the different operations of Arithmetic.

THE ADDITION.

Sometimes, but very rarely, this operation is performed as we are in the habit of doing in Europe, but, generally speaking, the Hindoo method differs from ours.

A Hindoo generally begins to add the numbers from the left. To make the matter perfectly clear, we will take an example:—

Add together

2431
2140
7823
6142

18542

17432

Commencing on the left, we shall say 2 and 2 are 4, and 7, 11, and 6, 17. We shall write 17 under the final total. Then taking the next column, we

shall proceed as before; 4 and 1, 5, and 8, 13, and 1, are 14. We shall write the 4 of 14 next to 17, and we shall add the tenths to the preceding number, 7, which will give us 8, which we shall put in the final place just above 17. And so on.

THE SUBTRACTION.

The subtraction, which, like the addition, can also be performed in the European manner, is generally performed in a way similar to the one used in the addition.

When the figures to be subtracted are all smaller than those they are to be subtracted from, there is no difficulty whatever.

Let us, however, notice at once that in India the number to be subtracted is always written *above* the one it is to be subtracted from. Thus, if we have to subtract 15 from 55, we write the numbers thus:—

55
15

whilst a Hindoo writes them in a reverse way:—

15
55

When the numbers are not readily subtracted, the following is the *modus operandi*:—

Example.—Subtract 367 from 54132:

367
54132
53765

As we cannot subtract 7 from 2, we borrow ten from the next column, and we subtract 7 from 10, which gives us 3, to which we add 2, and we write the total 5, in its final place.

Then we carry the borrowed 10 to the next column, which will give us 7 to be subtracted from 3. We shall say, as before, 7 from 10 leaves 3, + 3 make 6, which we shall write in its proper place, and we shall proceed thus to the end.*

I will now give an addition and a subtraction copied from the writing-board of Hindoo schoolboys.

Addition.

	4	3	2	0	1	4
	6	1	3	1	4	2
			6	8	1	9
	3	2	1	4	7	1
Total.	1	3	6	2	3	3
		0	1	1	1	1

which gives as final total 1373446.

* Strange as it may seem, I have known a good many English boys, who had never been in India, who performed all their subtractions in that manner.

Subtraction.

		1	1	1	1	
Subtract			1	3	9	7
from	4	6	0	3	9	6
	4	5	8	9	9	9
						Difference.

THE MULTIPLICATION.

This operation is performed in different ways, according to convenience. These manners will be best understood from the following examples:—

Multiply 385 by 12.

Write the multiplier under the multiplicand in such a manner that the last figure on the right may be under the last figure of the left of the multiplicand, thus:—

$$\begin{array}{r} 385 \\ 12 \\ \hline 770 \\ 770 \\ \hline 4620 \end{array}$$

Multiply each figure of the multiplicand by 12, arranging the numbers as in the above example. When it is not convenient to multiply by the multiplier, the whole of the multiplier is multiplied by each of the figures of the multiplicand, arranging the operation as above.

E.g., Multiply 385 by 61.

$$\begin{array}{r} 385 \\ 61 \\ \hline 385 \\ 2310 \\ \hline 23485 \end{array}$$

This system presents certain advantages. It is clear, and besides, it is often possible to shorten the operation by multiplying by two figures at once. For example, in the following multiplication, after we have reached the 9 of the multiplicand, we can multiply by 12, which, instead of the two lines 2415 and 4830, will give at once 28980. We shall have to take care to place the zero under the 2 of the multiplicand.

Example: Multiply 67891234 by 2415.

$$\begin{array}{r} 67891234 \\ 2415 \\ \hline 14490 \\ 16905 \\ 19320 \\ 21735 \\ 2415 \\ 4830 \\ 7245 \\ 9660 \\ \hline 163957330110 \end{array}$$

Sometimes the Hindoos split the multiplier into two other numbers whose sum is equal to the multiplier. Thus $12 = 4 + 8$ or $6 + 6$ or $3 + 9$.

In that case the multiplicand is multiplied by each of the numbers separately, and the two results are added together. Thus 385×12 gives

$$\begin{array}{l} 385 \times 4 = 1540 \\ 385 \times 8 = 3080 \end{array}$$

4620 = product of 385 by 12.

Sometimes also the factors of the multipliers are used.

When the multiplier consists of four or more figures, the multiplication is begun by multiplying all the figures of the multiplicand, commencing on the right, by each of the figures of the multiplier beginning on the left. E.g., Multiply 2514 by 315.

$$\begin{array}{r} 2514 \\ 315 \\ \hline 7542 \\ 2514 \\ 12570 \\ \hline 791910 \end{array}$$

Here follows an example of a longer kind of multiplication:—

$$\begin{array}{r} 23578912 \\ 110512 \\ \hline 23578912 \\ 23578912 \\ 117894560 \\ 23578912 \\ 47127824 \\ \hline 2605752722944 \end{array}$$

or if we multiplied by 11 and by 12, the operation would be shortened.

$$\begin{array}{r} 23578912 \\ 110512 \\ \hline 259368032 \\ 117894560 \\ 282946944 \\ \hline 2605752722944 \end{array}$$

THE DIVISION.

To perform this operation the Hindoos first write the dividend, then they place the divisor below it, and the different remainders are placed above the dividend, whilst the quotient is written on the right of the latter.

Let us take an example, and suppose it is required to divide 120528 by 372.

The operation will appear as under:

$$\begin{array}{r} 1488 \\ 1488 \\ 744 \\ 8928 \\ 1116 \end{array}$$

Dividend..... 120528 Quotient..... 324
 Divisor..... 372

372

372.

We shall find, first, the first figure of the quotient, we shall then multiply the divisor by that quotient, and write the product over the dividend. Then we shall perform the subtraction, and instead of bringing down the next figure of the dividend next to the remainder to divide again, we shall bring up all the remaining figures of the dividend by the side of the remainder, and we shall divide again as before.

FRACTIONS.

We have but little to say about them.

The reduction of fractions to the same common denominator, the addition, subtraction, multiplication and division of fractions, are all performed in a manner which differs but little from ours.

The only remarkable peculiarity is, that the Hindoos do not make use of the dash to separate the numerator from the denominator.

Thus they write $\frac{1}{2}$ and $\frac{3}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$.

THE SQUARE ROOT.

This operation is performed nearly as in Europe.

The only difference is, that instead of pointing off in sets of two figures, the Hindoos make use of two dashes, a prependicular one for the figures of odd rank, and a horizontal dash for the others.

Thus

| — | — | — |
 3 1 5 4 7 5 6

Such are the principal operations of Arithmetic given in Bhaskara's work. Bhaskara seems to have been one of the first in India to propagate a knowledge of Mathematics. The methods he introduced are still, in a great degree, those adopted in native schools.

As I have said at the beginning of this article, Bhaskara also wrote a treatise on Algebra, one on Geometry, and one on Astronomy.

It would be useless to enter into details concerning his mode of working, which differs but little from our modern methods.

It is chiefly because of the similarity of Bhaskara's methods to ours that a perusal of his books is highly interesting.

There is in this fact a revelation for us Europeans. It shows us that the Hindoos of old were not altogether an ignorant race, and that the actual development of science in Europe had its dawn in the East. If we have advanced, the nations of the East have been the first pioneers.

286

MR. MADDOX' EDITION OF CHAUCER'S PROLOGUE.

SIR,—I beg you will be pleased to allow me some space in the next issue of the *Journal of Education* to reply to your remarks on my edition of "Chaucer's Prologue to the Canterbury Tales," reviewed by you in the October Number of that Journal.

My publication may be said to consist of an *Introduction*, *Tyrwhitt's Text*, a *Popularised Version*, a *Prose Version*, and the *Notes*. Permit me to say a few words on each of these.

(i.) "The *Introduction*," you say, "contains some valuable work, and the selections from critics are judiciously made." The *Notes* you characterise as "good and full." So far, then, there is no fault to find.

(ii.) *Tyrwhitt's Text*, you say, is out of date, but what I wish to know is, if there is anything pernicious or destructive to education in giving students *Tyrwhitt's Text*, when there were already in the field three or four editions of the *Prologue* containing the text you uphold. I can see nothing wrong in this. And, besides in the Preface to *Tyrwhitt's* edition of Chaucer I read:—"The first object of this publication was to give the text of *The Canterbury Tales* as correct as MSS. within the reach of the editor would enable him to make it." *Tyrwhitt* has always been regarded as one of the best editors of Chaucer, at the same time I was not ignorant of the value of *Morris's* edition.

(iii.) Then as regards the *Popularised* (or *Modernised*) Version, I would enquire if there is anything 'bad' in reproducing, no matter whether on the same page as the original text, or on any other page, the *Popularised* or *Modernised* Versions of such men as Wordsworth, Leigh-Hunt, Horne, Bell, Cowden Clarke, Purves and others. If there is, if such a thing is considered 'destructive to education,' then all I can say is that I err in very good company. I attach no importance to any argument which tells me that by reproducing a *Modernised* Version of a Poem on the same page as the original text, I sin, and that by reproducing the same thing on any other page, I do not sin.

(iv.) And lastly comes the fatal "*Prose Version*"—it is actually "*underneath the original version on every page of the text*"—"it strikes at the very roots of education"—"it encourages every fault that we try to discourage"—it is a "pernicious innovation," and so on. The inference, therefore, is that it would not have struck at the very roots of education, it would not have encouraged every fault that we try to discourage, it would not be a "pernicious innovation" if it had not been placed underneath the original text, i.e., if it had been placed on any other page, even in the place next nearest to the original text—that place, for instance, which the editor of "*A Prologue to the Canterbury Tales*" gives to his "*Modern Prose Version of the Poem*" in his publication which is reviewed in the *Madras Journal of Education* for June 1890. Mr. Creighton, the editor of that book, said in his Preface:—"A perfectly new feature in the modern prose version which removes all difficulty in the perusal of the poem, the old spelling of which is so great a stumbling-block to its study" (the italics are mine). The editor of the *Journal* read this and exclaimed:—"Admirable!" Creighton, "your book is a trustworthy guide to students." (See the *Journal* for June, 1890.) My *Prose Version* is also intended to remove all difficulties in the perusal of the poem, the old spelling of which is so

great a stumbling-block to its study. Where then, I ask, is the harm of placing it on the same page as the original text, if this desirable object is to be accomplished?

Now, Sir, if you had altogether condemned the insertion of a *Prose Version* in any part of my publication, I could have seen some reason in your objection, but to condemn it simply because it happened to be where it *may* not have been, is quite beyond me.

You ask whether, if engaged in teaching a Latin or a Greek author, I would willingly admit into my class any student possessing a book which contained not merely the text of the author, but the text *plus* a fluent *English* translation on the same page. In reply I say, 'certainly not.' But I do not think I would object to admit into my class any student who possessed a book which contained not only the text of the Latin author, (I know very little of Greek), but the text *plus* a fluent *Latin Prose Version* on the same page. I would here refer you to the Delphin edition of Latin authors.

Some of your remarks are made on the assumption that *all* students for the B.A. Degree are students of some College. That such is not the case you know very well. Private students have neither Professors to instruct them nor Libraries to furnish them with information; and may I not be excused (if I am wrong) for making the study of the *Prologue* easy for them?

To conclude, your objection, then, is not so much against *Popularised Versions* and *Prose Versions*, as against these *Versions* being printed on the same page as the original text. You would not have found serious fault with me if I had put these versions in some other part of the book, no fault was found with 'the admirable Creighton.'

I thank you for the meed of praise you bestow on my Notes and Introduction and beg to subscribe myself,

LOVEDALE, OOTACANUDY,
17th October 1891.

GEO. MADDOX.

[** With the following remarks, which contain categorical answers to Mr. Maddox's letter, we must close this subject, and let the educational public form their own judgment.

- (i). Regarding the *Introduction* and *Notes* our opinion is unaltered.
- (ii). This contention would be justified only on the supposition that every student bought at least one of the other editions. We take it for granted, and on enquiry find our opinion strengthened, that such is not the case. Students are not, as a rule, rich; and only in rare cases buy more than one edition: and if they buy the present edition, they labour under the disadvantage of possessing a text which is certainly not the best available.
- (iii). It should be observed that, though Mr. Maddox quotes great names, he does not imitate their example, nor does he, as he claims, "err in very good company;" for from the educational standpoint they do not err, and he is guilty of a glaring error. Not a single one of the authors mentioned ever wrote a *Modernized Version* of any portion of Chaucer, printed on the same page as the original text, and intended for use in Schools and Colleges where Chaucer is taught as a text-book. But this is what Mr. Maddox has done. Their versions are what they purport to be, i.e., *Popular*, intended for the general reading public and not for scholars.

(iv). (a) The inference is wrong. (b) With Mr. Creighton's edition, we are in no wise concerned. (c) Mr. Maddox is perfectly aware that this *Journal* has passed into other hands since June 1890.

We altogether condemn the insertion of any *Prose Version* in any part of an edition of any poetical selection prescribed as a text for a University examination.

We regret to see Mr. Maddox committed in print to the statement that he would permit the use of the *Delphins* in a Latin class. We beg to point out that hitherto we have neither met nor heard of any one who would agree with him in this particular. In English Schools and Colleges, the practice is strictly prohibited, and that for a twofold reason: (1) because it would give the students too much help, (2) because it would vitiate their Latin style, for the *Delphin Prose Version* falls somewhat below the Ciceronian standard, and cannot quite lay claim to the terseness of Tacitus. English is to the students of India pretty much as Latin is to the English student; and if Mr. Maddox wishes us to regard his work in the light of an English *Delphin*, we do not grudge him the comparison. On the whole, we think his reference to the *Delphin Classics* is not singularly happy.

Mr. Maddox must be aware that private students are an insignificant minority of the total number that present themselves annually for the Degree Examination. To the needs of such private students, we consider Mr. Maddox's edition of the *Prologue* admirably adapted.

In conclusion, we object to all versions except the original version.]

UNIVERSITY OF MADRAS SENATE MEETING.

At the meeting of the members of the Senate, October 29th, letters from Mrs. MacDonald and Mrs. Caldwell respectively were read, in which the Senate was thanked for its expression of sympathy on account of the deaths of Lieut.-General MacDonald and Bishop Caldwell.

Dr. Duncan moved that the following be substituted for By-law 166:—

"No candidate shall be admitted to the examination for the degree of Master of Arts unless he has passed the examination for the degree of Bachelor of Arts in this or some other University in the British Empire not less than two years previously and has obtained that degree."

After some discussion, Mr. Michie Smith proposed, and Dr. Oppert seconded, "that the words 'and has obtained the Degree' be omitted." This was carried. Mr. Bilderbeck wished to move an amendment, but as he had given no previous notice, and as Dr. Duncan maintained that the amendment introduced a distinct change, the Senate refused permission. Mr. Bilderbeck's proposition was to insert the words "Language Branch of" between "passed" and "the examination."

The Senate next simply recorded the communication of a copy of the correspondence relating to the establishment of a final examination for secondary schools alternative to the entrance examination of the University of Calcutta; also the Government Order that the Registrar can be a Fellow

REVIEW OF EDUCATIONAL JOURNALS.

In the *Educational Magazine*, the organ of the European Teachers' Association at Calcutta, the editor expresses his regret that there are so few competitors among East Indians for the *Lawrence D'Souza Scholarship*, which is of the value of Rs. 50 a month. In commenting on the Training College for teachers in Madras, the same Magazine says, that in the event of a Training College being established at Calcutta, a Licentiate in Teaching with 18 months' training would certainly not be put on a par with untrained graduates of some experience, as a correspondent of the *Madras Journal of Education* states is the case in the benighted presidency. The *Agra Teacher*, which for the most part consists of examination papers, has a notice of the late *Dr. Rajendra Lal Mitra*, whose death was noticed in England. During his lifetime he published 50 treatises consisting of 128 volumes. For many years Rajendra Lala held under the Government of Bengal the post of Director of the Court of Wards—an institution for the training of the minor Chiefs and Zemindars. He was rewarded by the Government with a pension of Rs. 500 a month. Rajendra Lala was honored with the Degree of Doctor of Laws by the Calcutta University; Government also bestowed upon him the title of Rai Bahadur, then that of C.I.E., and finally that of Raja.

In the *Christian College Magazine* for October there is an interesting article on *Heredity and the Hindu*. The writer evidently is of a lugubrious turn of mind so far as prospects of improvement in the natives of India go. The article leads to no practical conclusion, and is chiefly valuable as being one of many indications of the outspoken way in which, according to our contemporary, the *Christian Patriot*, the national degeneration of India is being fearlessly exposed by Hindus. We ourselves have heard very outspoken language by high caste Brahmins of the corruption of the Indian home, and of the national drama. Mr. Macmillan continues his series of valuable articles on the Greek poets. *Æschylus* and *Sophocles* are his latest contributions. There are long comments on Sir M. F. Grant Duff's "A Month in Southern India," contributed to the September number of the *Contemporary Review*. The editor's conclusion is "that in spite of the defects we have pointed out this article is calculated to do good in England." India has suffered in the past from the indifference with which it has been regarded by the great wars of the British people, but much more injurious than this indifference might be an interest based on misunderstanding and an imperfect knowledge of the history and present circumstances of the

country." Our own experience is that India suffered in the past, not so much from the indifference of the British people, as from their imperfect knowledge. This latter is being continuously remedied. The *Review of Reviews*, commenting on the same article by Sir Grant Duff, says:—His paper shows him to be as capable as ever of expressing his ideas in admirable English, lit up with brilliant illustrations and weighted with many profound aphorisms, and yet for the last ten years he has been almost a dumb dog. It is nothing less than a sin against mankind for such a man, with such an eye and such a pen, to deprive his countrymen of his ripe experience and extended observation.

The *Boston Journal of Education* has lately been giving a summary of the several valuable papers read at the Conference of the National Educational Association. The subjects are Kindergarten Workers, Elementary and Secondary Education, Training of Teachers, Industrial Education, Art and Music. On the 'Education of Business Men,' there is the following:—There is a growing belief among the American people in the advantage of a special preparation for a life work. In all the developments of the past toward affording this special preparation for a future career, the business man has been entirely neglected by the higher institutions. The business men determine what communities may do. They are the material element in American life and are coming to be the dominant representatives of society. Most of the interests of the country are in their hands. College trustees are selected from among them, even when they are not themselves college graduates, because they have practical sense, can add to the endowment, and know how to manage affairs. These business men have not seen in the past that the college could give anything that would be of distinct advantage to the boy who intended to go into business. We must control, touch, and affect these men by bringing them within the reach of the university. A college course can be worked out which will offer facilities for a business education. It must be broad and liberal at bottom and in all its effects. It must be more than the ordinary business college. It should include political science and history, and a thorough, systematic study of economics, and the body of rules according to which banking is carried on. Everything should be taught as thoroughly scientific study, and made a means to mental discipline. This will appeal to the sense of business men as something reasonable. An immense amount of valuable information can be given in connection with the best of mental training. The commercial college trains the clerk, but the college business course should train the head of the establishment. The most successful business men feel the lack of the

college training. Very rarely does a college graduate make a failure of a business career. He may very likely have to begin at the bottom, but in ten years he will probably have attained to much greater prosperity than the untrained man, and this because of those very qualities given him by his college training." Without making any comment on this statement, we may say in passing that it directly contravenes the opinion of the famous American millionaire—Vanderbilt. The same journal has an article illustrating the *Perplexities of Geographical Names*. This is a subject which demands the attention of both India and England, for at present there is no standard in these countries by which the spelling of geographical names may be gauged. America, as she should, makes much of the *Teaching of Patriotism*. In connection with what we have elsewhere said on the method of teaching history, we quote the following:—From the age of ten or eleven systematic text-book instruction should begin in state and national history and in civil government. Training in emotional patriotism and the moral attributes which reinforce and confirm it will lay well the foundation for the development, through these subjects, of national patriotism. Civil government, beginning at ten or eleven years of age, should teach all about that civil unit where the acts of a citizen count immediately for good or evil, where his neighbours and friends live, vote, and have their homes. Here the ties of association can be made valuable adjuncts to the instruction. A boy can be shown the rights and the duties of citizen and officer, and be impressed with the sacredness of suffrage and the gravity of official acts. Elections, officers' meetings, assessments, levy and collection of taxes, courts, and schools all furnish texts for making the whole matter of local government a living reality. Ours is a composite nation akin to all the world, to which the immigrant ever comes, and from which none go to seek a better land; and I have faith that the eternal principles of free government will fuse all discordant elements into a homogeneous whole. The public schools are the great fusing furnaces. From the plastic stream of American childhood they must mould American patriots.

The *School Journal* and the *Teachers' Institute*, both American journals, are excellent. We have received them, however, too late to give a review of them in this issue. The *Teachers' Institute* has a circulation of almost 50,000. This will give some idea of the influence which periodical literature has on the American people.

The *London Journal of Education* for October is a good and bulky number, containing as it does a fairly full account of the *Conference of the Teachers' Guild of Great Britain and Ireland*. The President, Professor Laurie, gave a striking address, in which he treated of the Curriculum

of Secondary Schools, the End of education, the place of Language in school curriculum, the Ideal of a University, the necessity of Method in teaching, and of it being taught at the universities. The learned professor showed how in the question of professional training England lagged far behind other countries, even behind its own colonies. He referred with satisfaction to the establishment of Day Training Colleges, of which we have before made mention in these columns, and made a very practical suggestion by recommending that some portion of the funds at the disposal of the County Councils should be devoted to the training of teachers, as this was the very highest kind of technical training. The general indifference to professional training was strikingly illustrated at the *Headmaster's Conference* by the Headmaster of Marlborough College, who gave a most qualified approval of the Registration Bills and the establishment of training colleges. He knew so little of the *Syndicate for the training of Teachers at Cambridge*, that he was uncertain whether the examination was still held or had been discontinued. As to the results of *Free Education* it is too soon to generalize, but our namesake is of opinion that it will not have much effect upon the attendance, except in infant schools.

The *Educational Times* has an interesting notice of Madame Pope-Carpentier, the Model Infant School Teacher. She had the good fortune to be greatly appreciated in her lifetime from the Minister of Education down, and dying in 1878 she has left a memory still fondly cherished by those in France who have the welfare of the young at heart. The leading article of the *Journal* is devoted to a discussion of the *Registration Bills*.

NEWS AND NOTES.

LOCAL AND INDIAN.

It is proposed to start a Musical College in Bombay.

Sir James Lyall is to receive the Degree of Doctor of Oriental Learning from the Punjab University.

Mr. Grigg will give over charge to Mr. Hannington at Shoranore on the 4th instant; after which Mr. Grigg goes on seven weeks' leave.

Government has accepted the proposal made by the Principal of the Medical College that the system of precollegiate training should be extended to private medical pupils at the Medical College.

Government has sanctioned the continuance of the evening classes in connection with the School of Arts for a further period of two years, from 1st July 1891.

The Government of India has approved of the proposals of the Madras Government regarding Mr. Chatterton's deputation for practical training in the P.W.D., and has forwarded the scheme to the Secretary of State for sanction.

We regret to record the deaths of Surg.-Major J. H. Ritchie, M.D., Principal of the Medical College, and of the Rev. John Hay, M.A., D.D., Fellow of the Madras University. Dr. Ritchie, who was on leave on account of ill-health, died off Aden on the 10th ult. Dr. Hay was in his 80th year.

Government has approved of a proposal made by the Director of Public Instruction that the District Surgeons in the town of Madras be included in the list of officers empowered to grant sanitary certificates to managers of schools within the Madras Municipality seeking Government recognition.

H. H. Maharajah Bhaska Seetapathi of Raminad has given the princely sum of Rs. 15,000 to the permanent funds of the Hindu Theological High School. There are many wealthy Maharajahs who could greatly forward the education of the masses by starting Public Libraries, Pariah Schools, &c.

Mr. F. Moss, B.A., (Cantab), Head Master of the High School, Mercara, Coorg, and son of Mr. J. Moss, B.A., Acting Professor of History, Presidency College, has accepted a tutorship under the Court of Wards. Mr. C. Moss, B.A., (Cantab), also a son of Professor Moss, is doing excellent work in Burniah, as Inspector of Schools.

In connection with the Teachers' College Association, the following useful and varied subjects have been discussed during the past month:—Public Education *versus* Private Education; respective merits of Agriculture and Commerce as professions; the influence of the Hindu Theatre as an educator; and the influence of Caste as a bar to the progress of education.

H. E. Lord Wenlock, G.C.I.E., visited the Anjuman Industrial School on October 20th, and expressed his special satisfaction with the work being done at the institution, because he regretted to find in certain

290.

places and in certain cases, the Mahomedan community are far behind in the great and severe race which all creeds and people have now to encounter in their daily struggle for life.

We believe teachers of music do not generally know, that according to paras. 35 and 36, of the bye-laws of the School of Music, they may be registered without passing any tests, provided they have been "engaged in teaching music for two years previous to October 1st, 1891, on payment of a fee of Rs. 5, on making application to the Rev. J. T. Lawrence before December 31st 1891." We would advise teachers to take advantage of this privilege.

We are glad to hear that over Rs. 5,000 have already been subscribed to the funds of the newly-started Kanarese Literary Association. This Association has set before itself the patriotic object of restoring to the Kanarese language something of its pristine force and purity. For this purpose the Association intends offering prizes for Essays and Works in the Kanarese language. It will also make a judicious selection of school text books, and will endeavour to eradicate existing errors in the conflicting vernacular grammars. We wish it all success.

We see from a circular before us that it is proposed that the first anniversary celebration of the *alumni* of the Madras Christian College shall take place before the end of the present year, probably during the Christmas Holidays. The meeting will serve to show the gratitude of former students for the indefatigable and self-denying labours of Dr. Miller, his predecessors and his colleagues, present and past, in the task of educating the natives of India! An appeal is made for subscriptions to meet the expenses of the first gathering.

The India Office has published a revised list of the principal Indian Government publications on sale in England and at the various Government Presses in India. It is intended to issue revised editions of it periodically. The list includes archaeology, foreign office records and correspondence, financial, military, and legislative departments generally. The list of books and documents on geology is especially comprehensive. There is no department of official business in India, of the chief publications of which an exhaustive catalogue is not given in this list.

A letter has been addressed by the Registrar, Madras University, to the Principal of the Madras Medical College, which directs that all

matriculantes that join the College now will only be allowed to go up for the first L. M. and S. degree examination till the years 1893 and 1894. In the event of their failing in those years, they will be compelled, according to a recent ruling by the Syndicate of Madras, to pass the First-in-Arts examination, then to undergo the first two years' course over again, and then to go up. This rule has caused much dissatisfaction among the students of the College.

* * *

Female education is not making large strides in the Punjab judging from the Report for last year. The fact is that the general opinion of the country, so far from demanding female education, still rather distrusts it. Until this opinion is changed one cannot anticipate any very great results. It is especially to be regretted that the educated classes of the community generally show little or no desire for the education of their wives and daughters. The Municipal bodies, too, with the honourable exceptions of Gujranwala and Amritsar, are said to be apathetic, if not obstructive, in the cause.—*Mail*.

* * *

We are glad to hear of the existence in Madras of a Society organized and conducted by Graduates of the Madras University, the object of which is to encourage the critical study of Scientific and Literary subjects. The Society is known as the Literary Institute and owes its origin to Mr. T. Saravana Muttu, B.A., a distinguished Graduate of the Presidency College, and now the Librarian at that College. Meetings are held every fortnight in which original papers on Scientific and Literary subjects are read and discussed. Most of the members are candidates who are prosecuting their studies for the M. A. Degree Examination.

* * *

The long-expected and much-needed catalogue of the library of the Madras Literary Society has made its appearance. Some few readers, who may have occasion to use the catalogue, may possibly have their doubts as to the wisdom of the plan on which the books have been arranged. They, however, will do well to remember that "the work of cataloguing, a long and arduous task, has been carried out in their leisure hours by busy men," and they certainly will allow, as a result of the compilers' labours, that the latter are fully entitled to the credit contained in the motto at the beginning of the catalogue—"Ex fumo dare lucem." The typography and the general 'get up' of the book speak well for

the Lawrence Asylum Press, while the long list of books bears witness to the extent and efficiency of the Society's library.

* * *

Dr. Duncan, the Acting Director of Public Instruction, accompanied by Mrs. Brander, the Inspectress of Girls' Schools, and Mrs. Duncan, visited Chingleput on the 12th October and inspected the Reformatory School there. They were very much pleased with all that they saw and heard at the school. Amongst other things, the boys' Writing exercises, Singing both in Tamil and English, Action songs, Physical Training Drill, and the Plain Needlework of the Tailoring Class, were particularly admired. The Drill is a new feature introduced into the working of the school. Mrs. Brander made the following entry in the School Visitors' Book.—"I visited the Reformatory school to-day with Dr. and Mrs. Duncan and was much interested and pleased with all I saw. The boys seem to receive a most suitable and excellent training here."

* * *

Mr. H. B. Grigg and Education in Travancore and Cochin.—If anywhere the influence of the wise counsels of this erudite educationist and diplomatist has made itself apparent, it is chiefly in the Educational Department of the Travancore State. Among the various changes that have of late been introduced into the Department, the subjection of the management of His Highness the Maharajah's College to the control of a special Standing Committee recently established to generally advise and assist the Principal, and the separation of the High School from the College by the appointment of a separate Principal to be in charge of the former are matters of special interest in the direction and control of Education in Travancore. The apparent curtailment of the powers of the Principal in the first case has, however, been attended with a great loss by the abrupt resignation of the College Principalship by the able Science Professor, Mr. H. N. Read, M.A., who, we hear, has already secured an appointment elsewhere.—*Christian Patriot*.

* * *

Kumbakonam College.—A correspondent says:—Neither the moral nor the intellectual side of the Student's life at this College is neglected. Under the tutorial system which has been in force for more than a year, every Lecturer and Assistant Lecturer has to look after about 25 Students both in and out of College hours. The Student goes to his Tutor for advice in all matters of difficulty, and all applications for leave have to be countersigned by the Tutor in the first instance. The Lecturers sometimes go to the houses of their pupils with a view of having some

idea of their moral and physical surroundings. The pupils also visit their Tutors in their houses where they are entertained by exhibitions of the Magic Lantern, the Telescope, or pictures taken from the Illustrated Magazines. Besides the weekly compositions and examinations in optional subjects, all classes have to answer papers on alternate Saturdays. Last Session the classes were examined every Saturday, but as it was felt to be too great a strain on both boys and pupils, it had to be given up.

* * *

The Grant-in-Aid System, as transplanted in India, produces some very curious fruit. In the Madras presidency, Dr. Duncan, of the Educational Department there, mentions in a recent report that the rules framed with a view to the encouragement of the regular collection of the fees fail in their object, because "on the one hand parents profess not to see the necessity of paying anything for the schooling, on the other ostensible ground that the masters are remunerated for their labour from the public funds in the shape of result-grants, and on the other hand masters are afraid to take steps to enforce payments of fees for fear of the children being withdrawn from school, either immediately or just before inspection." In some cases, indeed, the parents have claimed a portion of the grants, which they look upon as the earnings of their children. "Was there ever a more ludicrous perversion of the true educational spirit?" inquires the *Pioneer* of Allahabad. "The teacher in mortal terror lest he should lose his result-grant; the parent regarding the education of his children as a money-making trade; the child finding himself hustled by pedagogue and parent alike in the mere hope of gain; the one idea which never rises uppermost in the minds of any one of the three being that education is of some worth in itself. No doubt within the last decade the total amount of fees collected has risen very largely, in a considerably larger proportion than the population; but that the mercenary conception of education should have obtained so wide a currency, or rather that the true conceptions should have so little penetrated the Madrassi's mind at all, is not a gratifying result of our educational system." Madras, however, is not singular in this respect. In Bengal there are schools where the master pays the pupil to attend, looking on him as an article of merchandise, to be bought from the parents at a price, and sold to the examiner at a profit. We have not yet reached such developments at home.—*The Educational Times*.

LITERARY AND GENERAL.

An inch of rain means a hundred tons of water on every acre.

* * *

The Kent County Council have resolved to establish twenty scholarships of £20 each at the Agricultural College, Swanley, for scholars from elementary schools.

* * *

The evidence taken by the Special Committee in connexion with the Registration Bills is now out, and can be procured from Messrs. Eyre and Spottiswoode for three shillings and three pence.

* * *

Lieutenant Little, of the naval branch of the World's Fair, is to superintend the construction of a vessel which is to be an exact reproduction of the one in which Columbus first sailed to America. This vessel will lead the procession in the great naval review.

* * *

In connection with the international value of real Universities, a French Deputy once said:—"If a French Secretary of State has a difficult negotiation with an English Secretary, how much more easily these two would come to an understanding if they had been at some University together!"

* * *

All but nine States out of the forty-four in the American Union now make scientific temperance education compulsory in their common schools. This great result has been brought about almost exclusively by the devoted labours of Mrs. Mary H. Hunt, of Hyde Park, Massachusetts, and for her assistants in the National Woman's Christian Temperance Union.—*Our Day* in *The Review of Reviews*.

* * *

Few things are more painful to a thoughtful observer than to hear ten or a dozen pupils glibly relating, one after another, some event, in all its little details, in precisely the same words, as if written, revised, and committed to memory. As it seems to me, this does not make thinkers, does not cultivate the reasoning powers, or make independent speakers.—*Report of George Howland, Chicago*.

* * *

Germany is the banner country for compulsory school attendance. In 1888 out of 5,000,000 children of school age, from 6 to 14, but 5,145 were absent without cause, or 999 in every 1,000 were in school. In Berlin but fourteen boys and one girl evaded the law. The German government secures this attendance because it means business. It arrested 1,088 parents for trying to evade the law, and fined 1,020. It

is almost as serious a matter to try to escape sending a child to school as to evade paying taxes.—*Boston Journal of Education.*

It is stated by the "Oxford University Extension Gazette" that Mr. T. D. Galpin, of the firm of Messrs. Cassell & Co., has offered to the Dorset County Council the sum of 1,000*l.*, to be invested for the purpose of providing scholarships to send natives of Dorset to the Summer Meetings of Oxford and Cambridge. The scholarships will be awarded to the writers of the best essays. The scholarships are to be awarded without distinction of sex, or any political, sectarian, or social distinction whatever.

In the village of Snitherfield in Warwickshire a find has been made of a Shakespere Cupboard. This interesting article of furniture is stated to bear the inscription made with flat headed copper nails, "June, 1585, I bought it. I sawed it. May, 1586, I nailed it. I carved it—*William Shakespere.*" Then follows the interesting record "April 23rd. Born 1564." It was not till some paint and black-lead were removed that these words were revealed. Shakespere's paternal ancestors, as we all know, lived at Snitherfield. The most perplexing feature of the whole case is that the poet, who never troubled himself to claim the authorship of his immortal plays, should have been so careful as to forestal any future controversy as to who repaired that cupboard.

Von Moltke, in reply to a letter containing the question, "What books have exercised the greatest influence upon your mind?" replied:—"I take pleasure in satisfying the desire which you have expressed, and I send you a list of the works which, I think, have had the greatest influence upon me. Upon this subject I wish to tell you that I read the Iliad when I was only nine years old,—of course a translation.—Yours, etc., MOLTKE, *Field Marshal.*

The letter was written in German, in the handwriting of the Count, and the list in French as follows: "La Bible; Homere, Iliade; Littrow, Les Merveille du Ciei; Liebig, Lettres sur la Shakespere; Walter Scott; Ranke; Carlyle."

In commenting on the Teachers' Registration Bills, the *Educational Times* says:—"Responsible and competent supervision the State may supply, and this would be willingly accepted. Better training for teachers is wanted. This will come in time by the action of existing institutions, but may be secured all the earlier for State assistance. More information is needed by the public on the qualifications of

teachers, and the character of schools fulfilling different educational purposes. All these aids may be furnished by the State without the destruction of the characteristic national agencies to which we have referred. The best beginning which legislators can make towards this end is the passing of a wise but moderate Registration Act.

The venerable but still active Oliver Wendell Holmes has just celebrated the eighty-second anniversary of his birthday. "It is a surprise," he said to a friend the day before, "when we find out we are growing old. It always comes as a shock to us when we first discover that others regard us as old. Life seems more and more like a dream as one reaches old age—it seems like a dream. I am very well and very happy. My eyesight troubles me somewhat, so that I am very glad to avail myself of the services of a secretary, and I am a little troubled at times to recognise my friends and acquaintances on the street. Perhaps some of them may have thought that I have intended to cut them; but it is only a little trouble with my eyes which causes me to pass them. Other than this I have no physical trouble."

Mr. J. R. Diggle, Chairman of the School Board for London, has made his annual statement with regard to the work of the Board. The population of London had, he said, grown enormously since the work of the Board began. In 1871 the population was 3,266,987. In 1891 it numbered 4,211,056. And the civic wealth of London, taking as some measure of it the annual rateable value, had increased from 19,970,000*l.* to 33,000,000*l.* In 1870 the Board began their work with not a single school under their control. Now they possessed 410 schools, affording an accommodation for 428,000 children. The cost of obtaining this large public school property had been 8,439,000*l.*, of which during the same period 1,130,000*l.* had been repaid, leaving an unpaid debt upon this account of 7,309,000*l.*

All who are interested in the Magic Lantern as an Educator will be pleased to know that Mr. Stead, Editor of the *Review of Reviews*, has started a Society of Lanternists. Another paper entitled 'Help' contains full information respecting the Society. Mr. Stead says:—"What I propose, therefore, is that there should be started in every centre of population in the land, wherever there exists a man or woman with sufficient intelligence, public spirit, and leisure, a course of Lantern Lectures on Contemporary History. Every month a lecture could be delivered based upon the history of the preceding month, and in this way an intelligent interest could be developed in the progress of the

world, which would in time exercise an immense educational influence upon the democracy of our lands.

At the Conference of the Teachers' Guild of Great Britain, one of the speakers was of opinion that if training colleges aimed at nothing else, they should at least endeavour to increase the professional enthusiasm of teachers. Mr. H. Courthope Bowen held that the truly practical man was not he who worked by rule of thumb, hastily and unintelligently picked up, but the man who took the trouble to learn what others had done, who had mastered at least some general principles, and who understood the meaning of what he did. Training colleges did not claim to turn out perfect teachers, but men and women who had thought over what they were going to do, and who had learned how to observe and what to observe—in short, teachers who were fitted to profit by the experience which was soon to be theirs.—*The Educational Times*.

In the course of a paper on training in the *New Review*, Sir Morell Mackenzie gives the following dietary scale of the Oxford crew when training for the Boat race.—On getting up at 7-15 A.M., they take a biscuit and glass of milk, then they go for a gentle walk for a mile. Breakfast, at 8-30, consists of tea or cocoa (two cups at the most), sole, or some other kind of fish, chop, with a poached egg on it, and some green food. No marmalade (for which Oxford men, unless they are much belied, have a weakness) is allowed till two weeks before the race. At luncheon they have cold meat with one glass of beer. At dinner, the menu includes fish, chicken, turkey, or joint (always some kind of fresh meat), milk pudding, and stewed fruit (rhubarb by preference); two glasses of beer are allowed, and after dinner one orange and a glass of port may be taken. At 10 P.M. they go to bed. This seems to me a very sensible dietary, with plenty of muscle-forming elements in it, but not too carnivorous.

Buddhism.—*Self-conquest and universal charity*—these are the foundation thoughts, the web and the woof, of Buddhism, the melodies on the variations of which its enticing harmony is built up. Such a religion could never remain buried in the cloister, or remain the privilege of the few. From the first it became an appeal to the many, and addressed itself, not to the learned or to the rich, but to all mankind, to men and women, slaves and bondmen, Brahmins and Sudras, nobles and peasants alike. The abuses of caste and priestcraft could no longer grow and thrive among men who looked at every question from a

rationalistic standpoint, while their hearts were aglow with real and practical philanthropy. In Guatama's view men differed one from another, not by the accident of birth, but by their own attainments and character; the same path to the same salvation lay equally open to all; and even in this life the poor and the despised were welcomed to the ranks of the order, where wealth was abandoned, and birth went for nothing in comparison with character or insight.—T. W. RHYDS DAVIDS. (Buddhism, *Encyclopædia Britannica*.)

*** Professor Max Müller estimates the number of Buddhists in the world to be 450,000,000.

The forthcoming changes in the examination for the Indian Civil Service have already been foreshadowed in the *Gazette of India* which announces an examination under the new conditions on the 1st of August next year. The lowering of the age has been a failure; and Lord Salisbury, who, as Indian Secretary, was responsible for reducing it to nineteen, is now a consenting party to its being raised to twenty-three. Thus the door is again thrown open to men who have taken their degrees at the Universities, and are looking round for a career. The average time of going out will in future be nearer twenty-four than twenty-one. The change is popular in India chiefly because it gives the educated native a much better opportunity of joining the Covenanted Service. Hitherto his only chance has been to come to England in his boyhood and receive an entirely English education, and even then the great preponderance of classical subjects was against him. The new examination scheme still requires the candidate to come to England for examination, but the subjects are so arranged as to give the graduate of an Indian University special opportunities, whether he has been coached in England or not. The next step, and it must come sooner or later, will be to hold the examination simultaneously in India and in England.—*Echo*.

At the Oriental Congress Prof. E. Aymonier read a paper on "French Colonial Education." The author considered the treatment of the indigenous peoples in conquered colonies of the greatest importance and of the most delicate character, bearing as it did on the permanence and enterprise of the conquered. In France they were feeling their way, having lost their colonies by historical vicissitudes, and thus being without colonial traditions. But the national character, tending to symmetry, generalisation, and uniformity, rendered it difficult to avoid mistakes in the application of principles. Leaving out colonies which, like the Antilles, have been assimilated in character with the mother

country, he noted, first, the group of Algeria and Tunis. The Europeans there received French education. In the former there were for the indigenous people only 100 French-Arabic schools, with 10,000 scholars, very poor figures compared with at least 400,000 children. In Tunis, recently placed under French protection, things were better; 16,000 scholars were found in the numerous schools open to all races and religions. Another group included Senegal and other settlements on the West African coast, where there were no secondary schools, and primary instruction was given by mission teachers. For India the numerous primary schools taught French, and according to locality, Tamil, Bengali, and even English in preparation for English universities. There was a Colonial College at Pondicherry. In Cochin-China, the schools for native employees had had but poor results on account of the rude character of the native language. In conclusion Professor Aymonier said they must be modest, having had much to learn in this department from the English, who had occupied India so long and had spent so much on native education with results, perhaps, scarcely in proportion.

* * *

We have frequently referred in these columns to the various ways in which the older Universities of England are successfully bringing some of their privileges to those who cannot go to the Universities. This has been done by means of University Extension Lectures and Libraries, by Reading Circles, by Local Examinations, by establishing University men in the centres of squalid districts. We take from the *Echo* an interesting article how this latter work is being developed. The promoters of Wadham and Balliol Houses, adjoining Toynbee Hall, are a few University men who have joined hands and funds, in the hope of providing something like a University life for those whose days are occupied in business. At present they are content with a modest programme. They give the residents first of all the advantages and economies of common life, and in addition certain special opportunities of study. Every resident has a private room, and each house a common room. The household arrangements are largely under the control of a committee of the residents themselves, and the cost is well within the most modest incomes. The rent of a furnished room, including attendance and use of common room, is 7s. a week. The total inclusive cost of board and lodging need not exceed 15s. a week. The residents, moreover, have all the advantages of Toynbee Hall. They can use its library, and even its tennis-court. Classes, reading parties, and travellers' clubs are all open to them. It is even in contemplation to follow the University model still closer by appointing tutors in certain subjects,

that any individual student wishing to pursue a particular study may have systematic teaching.

* * *

Essay on "Breath," by a schoolboy who had attended a course of lectures in Physiology:—"Breath is made of air. We breathe with our lungs, our lights, our livers and our kidneys. If it wasn't for our breath we should die when we slept. Our breath keeps the life agoing through the nose, when we are asleep. Boys that stay in a room all day should not breathe. They should wait till they get outdoors. Boys in a room make carbonic acid. Carbonic acid is more poisonous than mad dogs. A heap of soldiers was in a black hole in India and carbonic acid got in that black hole and killed nearly everyone afore morning. Girls kill the breath with corsets that squeeze the diagram. Girls can't run or holler like boys because their diagram is squeezed too much. If I was a girl, I rather be a boy so I can run and holler and have a good big diagram."—*Journal of Education, London.*

CORRESPONDENCE.

The Editor regrets that want of space compels him to decline the communications of:—R. G. R., P. M. R., A. A. F., W. L. B., and a Teacher. He trusts that this will not deter these gentlemen from forwarding papers on future occasions, especially as they have displayed considerable literary merit in their present contributions.

All contributions should reach the Editor by the 20th of each month to ensure their insertion in the succeeding issue.

STUDENTS' COLUMN.

(Mr. S. Subramania Aiyar, of the U. C. S. Commissioner's Office, has kindly forwarded the following questions on English, which he drew up for the F.A. students at Salem College.)

- II. A. Give the construction of the italicised expressions in the following:—
- (1) The pound of flesh was to be cut off from any part of the body that Shylock pleased.
 - (2) On the day that thou eatest thereof thou shalt surely die.
 - (3) It has been long gone five.
 - (4) He is a political economist.
 - (5) I am getting in years.
 - (6) It only requires to know him, to discover how good he is.

B. Point out and explain any peculiarity of grammar or idiom in the italicised expressions in the following:—

- (1) In this 'tis God *directs*, in that 'tis man.
- (2) 'Wherein *doth sit* the dread and fear of kings.'
- (3) 'Nor heaven, nor earth, *have been* at peace to night.'
- (4) It is *me* (When should the form "*It is I*" be used?).

C. Give an example in which the preposition *in* is followed by a noun clause for its object.

III. (1) Re-write the following sentence using *as* instead of *that* without making any unnecessary change.

"He was such a man that no girl could, at the first sight of him think herself injured by being asked to love him."

(2) 'The circumstance was too strongly impressed upon my mind to be ever forgotten'—Re-write, using the active infinitive.

(3) 'With the Mussalman gravity Muhammad Raza Khan bent his head and submitted himself to the will of God.'

Might the *the* before *Mussalman* be omitted? If not, why not?

(4) 'He attended church just often enough to escape the stigma of absolute indifference or infidelity'—Explain.

Suppose you were asked to expand the above into a complex sentence, which should you rather use, the form *just so often as it was necessary*, &c., or *just as often as it was necessary*, &c.? Give reasons.

(5) Wherein lies the wit in the following?

(a) One day, meeting two Royal Dukes walking up St. James's Street, the youngest thus flippantly addressed Sheridan—
"I say, Sherry, we have just been discussing whether you are a greater fool or rogue; what is your own opinion, my boy?" Sheridan having bowed and smiling at the compliment, took each of them by the arm, and instantly replied, "Why, 'faith, I believe I am between both."

(b) Being on a Parliamentary Committee, Sheridan one day entered the room as all the members were seated, and ready to commence business. Perceiving no empty seat, he bowed and looking round the table, with a droll expression of countenance, said, "Will any gentleman move that I may take the chair?"

IV. A. Give the meaning of the following proverbs and point out their application:—

- (1) As you brew, you must bake.
- (2) A rolling stone gathers no moss.
- (3) A straw best shows which way the wind blows
- (4) He that has been stung by a serpent is afraid of a rope.

B. Embody each of the following in a sentence of your own so as to show that you clearly understand its meaning:—

Ins and outs, *Up to the mark*, *Wide of the mark*, *In the long run*, *By dint of*, and *Out of the question*.

V. Distinguish between

- (1) Too much importance *cannot* be attached to this circumstance, and Too much importance *should* not be attached to this circumstance.
- (2) It is impossible that he can treat you *any worse* on this account, and It is impossible that he can treat you *any the worse* on this account.
- (3) There was *unmistakeable evidence* that the pistol had been fired, and There were *unmistakeable evidences* that the pistol had been fired.
- (4) She resolved to communicate everything to the murdered man's family *whom she knew* in England, and She resolved to communicate everything to the murdered man's family, *whom she knew to be* in England.
- (5) He has not passed the Matriculation, nor *yet* the Middle School Examination, and He has not passed the Matriculation, nor *as yet* the Middle School Examination.
- (6) I am satisfied *with* it, and I am satisfied *of* it.

VI. A. Correct the following sentences, giving reasons for the corrections you make:—

- (1) Indeed, I had nowhere to go that offered the slightest attraction.
- (2) He says that England may be richer than other kingdoms by as plain methods as he himself is *richer* than other men.
- (3) I have no time now for setting and valuing Examination papers.
- (4) I am not going to do anything in this matter more than I can possibly help.
- (5) Their heads were all shaved and their feet bare with fetters round the ankles and wrists of each person.
- (6) The Countess was either guiltless or dissembled so plausibly as to, &c.

B. Correct the errors in III—5 (a).

VII. As an exercise in Composition, write an essay of about two pages on the following subject:—

Misery is wed to guilt.

A 'Teacher' requests us to be kind enough to refer him to any rules of Syntax relating to the agreement of Subjects with Predicates in *number*, which govern the following cases:—

- (1) 70 inches is $\frac{7}{10}$ of my journey, &c.
- (2) $\frac{1}{10}$ of a sack of goods weigh 2 cwt., &c.
- (3) $\frac{1}{2}$ of my money is 1s. 6d., &c.
- (4) $\frac{3}{4}$ of a ship are worth $\frac{1}{2}$ of 8000£, &c.
- (5) In an orchard $\frac{1}{2}$ of the trees are pear trees; $\frac{1}{3}$ &c.

N.B.—The portions quoted above are word for word from a standard work published by Messrs. Macmillan and Co.

SOLUTIONS TO QUESTIONS

PUBLISHED IN THE OCTOBER NUMBER OF THE JOURNAL.

- I. (1) If both the roots be positive, $a\beta$ is positive and therefore c and a must have like signs.

Since $a+\beta$ is positive, $\frac{b}{a}$ is negative and therefore b and a must have unlike signs.

Hence the required condition is that the signs of a and c should be like and opposite to that of b .

- (2) If both the roots be negative, $a\beta$ is positive and therefore c and a must have like signs.

Since $a+\beta$ is negative, $\frac{b}{a}$ is positive and therefore b and a must have like signs.

Hence the required condition is that a , b and c must have like signs.

- (3) Since the roots are of opposite signs, $a\beta$ is negative and therefore c and a must have unlike signs.

Since the numerically greater root is positive, $a+\beta$ is positive, and therefore $\frac{b}{a}$ is negative and so a and b have unlike signs.

Hence the required condition is that b and c must have like signs and different from that of a .

- (4) Since the roots are of opposite signs, $a\beta$ is negative and therefore c and a have unlike signs.

Since the numerically greater root is negative, $a+\beta$ is negative; therefore $\frac{b}{a}$ is positive; therefore b and a have like signs.

Hence the required condition is that the signs of a and b should be like and opposite to that of c .

- II. (1) Suppose these equations are satisfied by a ; then

$$\begin{aligned} a^2 + ba + c &= 0 \\ pa^2 + qa + r &= 0 \end{aligned}$$

By cross multiplication,

$$\frac{a^2}{br-qc} = \frac{a}{cp-ra} = \frac{1}{aq-pb}$$

$$\therefore \frac{(cp-ra)^2}{(br-qc)(aq-pb)} \text{ is the condition required.}$$

- (2) Since a quadratic equation cannot have more than two roots, and both the roots are common, it is obvious from the equations that $a : b : c :: n (p : q : r)$ where n is any number positive or negative, integral or fractional.

- (3) Let a and β be the roots of the 1st equation and na and $n\beta$ be the roots of the 2nd equation, where n is any number whatever. From the 1st equation we get that $ax^2 + bx + c = 0$ is the equation which has na and $n\beta$ for its roots.

According to supposition the roots of $px^2 + qx + r = 0$ are na and $n\beta$. Hence the required condition is $p : q : r :: k (a : nb : n^2c)$ where k is any number whatever.

- (4) Let a and β be the roots of the equation $ax^2 + bx + c = 0$.

Then we may find the values of $a^3 + \beta^3 = \frac{3abc - b^3}{a^3}$ and $a^3\beta^3 = \frac{c^3}{a^3}$.

Then the equation whose roots are a^3 and β^3 is $a^3x^2 + (b^3 - 3abc)x + c^3 = 0$.

But the roots of $px^2 + qx + r = 0$ are a^3 and β^3 .

Hence the required condition is $p : q : r :: n (a^3 : b^3 - 3abc : c^3)$ where n is any number.

- III. (1) All the three factors would be positive if x be greater than 3 and their product also would be positive.

If x be less than 3 and greater than 2, two factors would be positive and one negative and the product would be negative.

If x be less than 2 and greater than 1, two factors would be negative and one positive and their product positive.

If x be less than 1, all the factors would be negative and their product also negative.

Hence in order that the expression may be positive the value of x must be between 1 and 2 or greater than 3.

$$(2) \frac{x^2 - 3x + 2}{x^2 + 2x + 2} = \frac{(x-2)(x-1)}{(x+1)^2 + 1}$$

$(x-1)(x-2)$ would be positive if x be greater than 2 and less than 1 and $(x+1)^2 + 1$ would be positive for any value of x .

Hence the condition is x must be greater than 2 or less than 1.

$$(3) \frac{x^2 - 5x + 6}{x^2 - 9x + 20} = \frac{(x-2)(x-3)}{(x-4)(x-5)}$$

If $x > 2$ the expression is $\frac{+}{-}$ is positive.

If $x > 2$ and < 3 do. $\frac{+}{-}$ is negative.

If $x > 3$ and < 4 do. $\frac{+}{+}$ is positive.

If $x > 4$ and < 5 do. $\frac{+}{+}$ is negative.

If $x > 5$ do. $\frac{+}{+}$ is positive.

Hence the condition is that x must have a value either greater than 5 or less than 2 or between 3 and 4.

- IV. (1) If $28 - 9x - x^2 > 0$,

or $26 - 9x - x^2$ must be positive.

or $x^2 + 9x - 26$ must be negative.

or x must have a value between the roots of $x^2 + 9x - 26 = 0$.

or x must be between $\frac{-9 + \sqrt{81 + 104}}{2}$ and $\frac{-9 - \sqrt{81 + 104}}{2}$

or $\frac{\sqrt{185} - 9}{2}$ and $-\frac{(\sqrt{185} + 9)}{2}$

(2) $x^2 - 4x + 3$ must be between 5 and 7.

$\therefore x^2 - 4x + 4$ do. 6 and 8.

$(x-2)^2$ do. 6 and 8.

$x-2$ do. $\sqrt{6}$ & $\sqrt{8}$.

$\therefore x$ must be between $2 + \sqrt{6}$ and $2 + \sqrt{8}$.

$$(3) \frac{3x^2 + 7x + 9}{x^2 - 3x + 2} = 3 + \frac{16x + 3}{x^2 - 3x + 2} \quad 74$$

$$\therefore \frac{16x + 3}{x^2 - 3x + 2} = 74$$

$$\therefore 16x + 3 = 74x^2 - 222x + 148$$

$$\therefore x^2 - 19x - 1 = 0 \text{ or negative.}$$

$\therefore x$ must be between the roots of the equation $x^2 - 19x - 1 = 0$ or

$$\text{between } \frac{19 + \sqrt{365}}{2} \text{ \& } \frac{19 - \sqrt{365}}{2}.$$

T. K. KRISHNAMACHARY,

2nd Senior Class, Presidency College, Madras.

REVIEWS AND NOTICES OF BOOKS.

THE INTRODUCTION TO A HANDBOOK OF GEOGRAPHY, with a set of exhaustive questions. Mangalore, 1890. Price: As. 3.

This little book of some 50 pages treats of general physical geography as an introduction to the systematic study of political geography. It is written to serve the purposes of the candidates for the Matriculation and Upper Secondary Examinations, and answers its purpose fairly well. It contains much matter wherewith to exercise the various faculties of the pupil.

A VILLAGE CLASS FOR DRAWING AND WOOD-CARVING. Hints to Teachers. By GERTRUDE MARTINEAU. London: Longmans, Green and Co., 1891.

We can strongly recommend this book to those teachers and students who are desirous of obtaining some elementary notions of drawing. It is copiously illustrated with geometrical, perspective, and freehand figures and contains the outlines of a number of common objects. It appeals so well to the constructive faculty that any student or teacher of average ability will readily be able to reproduce the examples given, and will be put in a fair way to create numerous examples for himself. A teacher who goes carefully through this book will be able to use the blackboard well and ably for the purpose of general illustration.

THE UPS AND DOWNS OF A DONKEY'S LIFE. Adapted from the French by Mrs. E. FIELDING. With Illustrations. Bell's Reading Books. London: George Bell and Sons, 1891.

We have read through this amusing little book with great interest. Even the youngest children cannot help being interested and amused at the novel way in which the donkey himself tells the story and the numerous adventures of his life. The book is admirably adapted to create a taste for reading in the young, and this is the highest praise that can be desired.

THE FIRST BOOK OF MILTON'S PARADISE LOST, with Notes and a Life of Milton. By C. P. MASON, B.A., F.C.P., Fellow of University College, London. 5th Edition. London: Bell & Sons, 1891.

In the introductory matter there are some excellent and very necessary notes of the analysis of sentences, the examples, of course, being taken from the text. Some of our Indian annotators might learn much from the kind of notes which Mr. Mason has added to the book. They are concise, to the point, they deal much with the construction, and considering the special difficulty of the text, they are very creditable. Following the Notes comes a list of difficult words which are used in obsolete or in unusual senses. The accompanying Life of Milton is a good one. An analysis or an outline of the book would have been welcomed by many. Indian teachers especially should exercise their pupils by making them give an analysis or the substances of the text-book in the pupils' own words.

NOTES ON LYALL'S "WARREN HASTINGS," by ROBERT HARVEY, M.A., LL.D., Fellow of the Madras University. Madras: Tawker, Sadananda and Co., 1891.

In the preface the author confesses to the Notes being written more hurriedly than he could have wished, but hopes they can be depended on as far as they go. He further regrets that the short time allowed him has prevented him from being able to elucidate one or two points. He further admits that perhaps the most common objection to them will be that they go too far, and that a leisurely revisal of them might have curtailed them with advantage. All this is doubtless very candid, and says much for the conscientiousness of the author, but it is none the less inexcusable. The annotator attempts to justify the overfulness of his 'notes' by expressing the hope that students will not use them on every possible occasion, before exercising first their own mental powers. For one experienced in Indian Education this is a very naive remark.

The annotator's plea of 'guilty' will not save him. We can assure him, if he needs assurance, that his 'Notes' are injuriously full, and with himself we regret the necessity (?) for giving them to the world in their present condition.

TENNYSON'S ENOCH ARDEN with Introduction and Notes, by W. T. WEBB, M.A., Professor of English Literature, Presidency College, Calcutta. London: Macmillan and Co., Price 2s.

This book is one of Messrs. Macmillan and Co.'s now the well-known series of English Classics for Indian Readers. There are two Introductions, one general, the other particular, and both excellent. No student, who goes carefully through these introductions, can fail to gain some clear insight into the spirit of Tennyson's poetry. The Notes are good and concise, and cover exactly the same ground as the Text, there being 28 pages of each. These are not the first complete notes on *Enoch Arden* that have been written for Indian Students, as several editions of Mr. Barrow's Notes have already been published, and we are somewhat surprised that Mr. Webb has made no mention of them, since a scrutiny of his notes shows a good many remarkable coincidences in the illustrative quotations and in critical points. *Enoch Arden* is one of the most suitable texts we know of for Indian Schools, and Mr. Webb's edition contains all the help that the most exacting student can demand. At the end there is a useful index, a matter that has been overlooked in some of the books of this series.

A SCHOOL ATLAS OF ENGLISH HISTORY, edited by SAMUEL RAWSON GARDINER, M.A., LL.D.

A COMPANION ATLAS TO 'THE STUDENTS' HISTORY OF ENGLAND, by SAMUEL RAWSON GARDINER. London: Longmans, Green and Co., 1891.

Both Mr. Gardiner and Messrs. Longmans are to be congratulated on the English Historical Atlas which lies before us. It consists of no less than 66 maps, and 22 plans. They illustrate every definite period or crisis in the history of England from the earliest to the latest time. They, therefore, include many valuable maps of historical Europe, America and India. We think Mr. Gardiner might with advantage have given a separate map of the district of the country where the chief events of the Indian Mutiny took place, as also a plan of Clive's greatest battle. These were events which procured and preserved our vast Indian Empire, and are certainly quite as important as many of the wars and battles which are specially illustrated in the Atlas. We

have nothing but praise for the way in which the work has been executed. The idea of illustrating history by maps and plans is not a new one, but it is one the importance of which cannot be too strongly urged in this country.

A SYSTEM OF LOGIC RATIOCINATIVE AND INDUCTIVE, by JOHN STUART MILL, People's Edition. London: Longmans, Green and Co., 1891.

This standard work on logic is so well known and appreciated where known, that our chief concern is to give a hearty welcome to the edition which puts Mill's Logic within the reach of all. Mill is chiefly valuable for the constant illustrations he gathers for his purpose from our every day life. John Morley, than whom no one is more fitted to speak with authority on Mill, says in his *Critical Miscellanies*:—If everybody could find time to master Mill's *Logic* or, so instructive and interesting a book as Professor Jevon's *Principles of Science*, a certain number at any rate of the bad mental habits of people would be cured; and for those of you here who have leisure enough, and want to find a worthy keystone of your culture, it would be hard to find a better thing to do for the next six months than to work through one or both of the books I have just named—pen in hand. The ordinary text-book of formal logic do not seem to meet the special aims which I am now trying to impress as desirable, namely, the habit of valuing, not merely speculative nor scientific truth, but the truth of practical life; a practising of the intellect in forming and expressing the opinions and judgments that form the staple of our daily discourse." If, as it has been said, the principal and most characteristic difference between one human intellect and another consists in their ability to judge correctly of evidence, then one cannot do better than to master such a book as Mill's *Logic*. The present edition issued by Messrs. Longmans and Co., is tastefully got up, is clearly printed, and is remarkably cheap.

LONGMAN'S INDIAN SCHOOL ARITHMETIC, adapted from Longman's School Arithmetic, by JOHN ADAM, M.A., Principal, Patchcappa's College, Madras: V. Kalyanaram Iyer. (All rights reserved.)

LONGMAN'S SCHOOL ARITHMETIC, by F. E. MARSHALL, M.A., and J. W. WELSFORD, M.A., is known to teachers at home to be an excellent book on Arithmetic. The usefulness of the book has been greatly enhanced by the addition of Examples and Exercises in Indian Currency and Weights and Measures. We are told in the Prefatory note to the Indian edition that two most important changes have been introduced in the Text of the English edition. We quite approve of the first which

is the treatment of Decimals as a legitimate extension of notation and numeration. As regards the second—Substitution of the Method of Proportion for the unmethodic process called the Unitary—we regret to point out that the change will not be quite welcome either to teachers or pupils. On the scope and usefulness of the unitary method, we simply quote below the opinion of Rev. J. B. Lock, author of 'Arithmetic for Schools' which has gone through several editions. "The so-called unitary method of solving problems is most useful for the purposes of explanation and instruction, as it exhibits the idea of number or ratio in a very simple form. It should however be used as a stepping stone to the more complete understanding of the fundamental idea of ratio, than as a completely satisfactory method for the solution of problems."

The answers to the exercises are printed on green paper probably to distinguish them from the body of the book. The printing and general get up of the book are not quite as good as Mr. Kalyanaram Iyer generally produces.

THE YUGAS, a question of Hindu Chronology and History by
M. RANGACHARYA, M.A.

This dissertation of Mr. M. Rangacharya, M.A., Acting Professor of Chemistry at the Presidency College, is well written, learned, and full of original research. He explains the word *Yuga* to be both in meaning and etymology allied to the English astronomical term "Conjunction." From this chronological significance of a lunar synodic month, it gradually passed on to mean the life period of a generation, or an age of indefinitely long duration. Indian astronomers have been in the habit of using the *Yuga*, from time to time, to serve various purposes of their own in the way of facilitating astronomical calculations. From meaning a simple lustrum of five years in the early days of Indian astronomy, it has now come to mean a period of 4320000 years. By giving some details from astronomical and other works, and by a reference to the *Yuga* of the *Romaka-Soddhanta* year to the system of *Yugas*, *Manvantaras* and *Kalpas* of *Aryabhatta*, it was shown that these apparently fanciful divisions of time were at first intended to serve astronomical purposes; and that the *Puranas* took them up, combined them cleverly with some of the principles of the *Sankhya* philosophy, and therefrom wove out a wonderful tale of an unlimited succession of cycles of cosmic creation and destruction.

Mr. Rangacharya's researches are, we believe, confined to Indian sources. A more extensive knowledge of comparative astronomy will

easily persuade him that the Indians are indebted to foreign nations and especially to the ancient Accadians for most of their astronomical divisions, e.g., to the names of the Zodiac, to the 60 years' cycle, the long period of 432000 years, &c.

We congratulate Mr. Rangacharya, however, on his scientific zeal, and trust he will continue his researches, and instigate his countrymen to follow his good example.

RULERS OF INDIA. CLYDE AND STRATHNAIRN, by MAJOR-GENERAL SIR OWEN TUDOR BURNE, K.C.S.I., Sometime Military Secretary to the Commander-in-chief in India. Oxford: At the Clarendon Press, 1891.

Under the title of *Clyde and Strathnairn*, Sir Owen Tudor Burne tells the story of the suppression of the great revolt in India, otherwise known as the Indian Mutiny. Considering that the writer has compressed the whole account of the origin, the events, the suppression of the Mutiny, within less than two hundred pages, we consider he has done his work more than well. The story of the Indian Mutiny, even if told in the baldest and crudest language, can never be without interest to Englishmen. But Sir Owen has invested the account with that indescribable charm, which comes from a writer who adds the graces of a good style to the lucidity and vividness of one who takes a personal part in the events he describes. Nevertheless every event is stated with a fitting sense of its importance to the whole; and accordingly we have a most readable, interesting, and concise account of the most momentous event in the history of our relation with India. In the 'Introduction' the causes of the Mutiny are well outlined, and Lord Lawrence is quoted at length. The body of the book deals with the complicated events of the Mutiny, and here it is we consider that Sir Owen has done so well. In a small compass he has brought order out of chaos, and although much personal matter has necessarily been omitted, yet the writer has such an intimate acquaintance with the events he describes, that he has not failed to make this difficult part of the book intensely interesting. In a subsequent chapter rightly entitled "Reconstruction," Sir Owen has discussed in a tolerant able manner the whole military question of India. In the concluding chapter an eloquent tribute is paid to all who took a share in averting the terrible disaster which threatened England. "They all, indeed, await their reward in the great awakening; and England may truly be grateful when she calls to mind the records so brilliant and deeds so honorable, and remembers the glorious part borne by her children in hasting down to

posterity, notwithstanding shortcoming failures and errors, one of the most memorable chapters of her memorable history. Still England is aware that her aim is peace, and that while governing the vast Eastern populations, committed to her care with firmness and discretion ready to defend them against a common foe within or without her borders—it were folly to suppose that the authority of a sovereign can be upheld by the sword without the attachment of a people, or that the attachment of a people can be of any avail without the power of the sword. Laying to heart the lesson of the past, we are content to believe that the Rulers of India in the future will use with wisdom the means which God has placed in their hands for inspiring the people of that country with affectionate obedience to the British crown, and for uniting them against either rebel or invader." A good map and two beautifully executed colotypes accompany the work. The typography and the general 'get up' of the work are worthy of the traditions of the Clarendon Press.

We are glad to receive the third volume of the *Maharani* in Tamil, and the numbers 1 and 2 of the *Maharani* in Telugu, and are happy that the former has had three years of circulation and that the latter is going through its second volume. We hope from the excellent manner in which the Magazines are conducted they will continue to thrive and be more widely circulated. The *Maharani* came in at a time when a Magazine of the kind was much needed as an additional means of furthering female education, and of promoting the desire for learning among girls, and in every home. The attractive appearance, the brightly coloured illustrations, and the great variety of interesting and instructive matter, have a peculiar charm for children and must inevitably make the Magazine charming reading. The Editor, with his extensive experience, has seen the needs and likes of the native home, and has succeeded in an admirable manner in making the *Maharani* meet the wants and wishes of those for whose benefit it was intended. Taking into consideration the expense of furnishing suitable coloured illustration, and the editorial and other labour in publishing the Magazine, we think the *Maharani* is too good for the very low subscription that is charged. We are sorry to learn that the Magazines are not even self-supporting as yet, and we wish and hope that those who take an interest in the welfare of the female population will see their way to secure for the *Maharani* increased circulation and support.

ACKNOWLEDGEMENTS.

Vritthi Vgraha Sangraha. By Govindapuram Annasastry, alias Mahadava Suri.
Human Physiology made Easy. Text-Book proscribed for the F.A. Examination. By an experienced Certificated Teacher.
Reports of the Chingleput Reformatory School for 1888-89 and 1889-90.
Educational Progress among Native Christians. Madras Native Christian Association Papers.
Catalogue of the Library of the Madras Literary Society.
The Government of Mysore's Report on Education.

EDUCATIONAL NOTIFICATION.

EXAMINATION IN SCHOOL MANAGEMENT UNDER THE EDUCATIONAL GRANT-IN-AID CODE.

It is hereby notified that the Departmental Examination in Method and School Management prescribed in rule 24, chapter II of the Educational Grant-in-Aid Code will be held on the 22nd and 23rd December next at the following stations:—

Russelkonda.	Cuddalore.	Sawyerpuram.
Berhampore.	Vellore.	Sakshipuram.
Chiecole.	Chittoor.	Pdyenkudi.
Vizagapatam.	Salem.	Nazareth.
Rajahmundry.	Hosur.	Palghat.
Narsapur.	Kumbakonam.	Calicut.
Masulipatam.	Negapatam.	Tellicherry.
Guntur.	Tanjore.	Camanore.
Kurnool.	Tranquebar.	Cochin.
Bellary.	Trichinopoly.	Mangalore.
Anantapur.	Coimbatore.	Ootacamund.
Cuddapah.	Madura.	Bangalore.
Madanapalle.	Dindigul.	Kottayam.
Nellore.	Ramnad.	Warangal (Hyderabad).
Ongole.	Tuticorin.	Gulbarga (do.).
Madras (Senate House).	Palamcottah.	

2. The examination will be conducted as noted below:—

Teachers of different grades.	Days.	Hours.	Subjects.
Collegiate, Secondary Higher and Secondary Lower.	First day	11 A.M. to 2 P.M....	Organization, School Registers and Returns, and Official Correspondence, Discipline.
	Second day	3 to 4½ P.M. 11 A.M. to 2 P.M....	Methods of Teaching, Oral Teaching and Notes of a Lesson.
Primary Grade, Higher.	First day	11 A.M. to 1 P.M....	Organization Registers and Returns.
	Second day	11 A.M. to 2 P.M....	Method of Teaching, Oral Teaching and Notes of a Lesson.

3. The examination is open to all candidates who have passed the requisite general education tests.

4. Candidates will be classified as *trained* and *untrained*; the former embracing those who have gone through the prescribed course at a recognized training institution, and the latter including all others.

5. The same question paper will be given out to trained and untrained candidates of the same grade.

6. Trained candidates shall be considered to have passed the written test, if they obtain not less than 45 per cent. of the marks in each paper, and untrained candidates, if they obtain not less than 35 per cent. in each paper.

7. The fee for the complete test in the case of teachers of the Collegiate grade is Rs. 10.
 Do. do. do. of the Secondary grade (Higher and Lower) is Rs. 6.
 Do. do. do. of the Primary grade is Rs. 2.
8. Fees at half of the above rates will be charged for the re-examination of candidates who fail in the practical test.
9. The fee must be paid into a Government Treasury and the Treasury officer's receipt must accompany the application for admission to the examination.
10. The attention of the Managers of institutions aided on the salary system is drawn to article 21, chapter II of the Grant-in-Aid Code.
11. Female teachers of the Secondary grade, Lower, and Primary grade, Higher (those who have passed the Higher Examination for Women or Middle School Examination in English excepted), may elect to answer the questions in the vernacular, and, if so, they must state in their applications the vernacular in which they offer themselves for examination.
12. Pending the institution of a separate test, the test for teachers of the Primary grade, Higher, is also open optionally to the teachers of the Primary grade, Lower.
13. Applications for admission must reach the office of the Secretary to the Board of Examiners, Teachers' College, at No. 54, Acharappan Street, Black Town, Madras, on or before the 31st October next. They must be prepared in the annexed form. Printed copies of the form may be had on application to the Secretary.
14. Applications defective in any particular will be returned. Candidates anxious to assure themselves that their applications have been received and registered should enclose an addressed post-card in their respective applications. Such post-cards will be returned with the acknowledgment through the post to the addressee.

Office of the Director of Public Instruction, D. DUNCAN,
 Madras, 1st October 1891. Ag. Director of Public Instruction.

NOTIFICATION.

Mr. M. T. Quinn, M.A., Acting Principal, Pachaiyappah's College, has been appointed by Government a member of the Board of Examiners, Teachers' College, vice Mr. J. Adam, who has left for Europe.

Office of the Director of Public Instruction, D. DUNCAN,
 Madras, 2nd October 1891. Ag. Director of Public Instruction.

NOTIFICATION.

In continuation of the notification regarding the form of sanitary certificate which should accompany applications for recognition and the officers by whom it is to be granted, published on pages 1219-20 of Part II of the *Fort St. George Gazette* of the 25th August last, and in the two succeeding issues, the Acting Director of Public Instruction hereby notifies that the several District Surgeons in the town of Madras have also been empowered by Government to issue such certificates.

Office of the Director of Public Instruction, D. DUNCAN,
 Madras, 16th October 1891. Ag. Director of Public Instruction.

APPOINTMENTS.

Surgeon-Major W. Price, M.D., to act as Principal, Medical College, during the absence of Surgeon-Major J. H. Ritchie, M.D., on leave, or until further orders.

Mr. H. B. Grigg, C.I.E., Acting Resident in Travancore and Cochin, privilege leave for one month and twenty-one days from or after 14th November 1891, under article 291 of the Civil Service Regulations.

The Director of Public Instruction is pleased to make the following promotions among Sub-Inspectors of Schools:—

M.R.Ry. B. B. Charan Chatterjia, Sub-Assistant, 2nd class, to be Sub-Assistant, 1st class, vice M.R.Ry. P. O. Pothan removed.

M.R.Ry. G. S. Seshayya, Sub-Assistant, 3rd class, to be Sub-Assistant, 2nd class, vice M.R.Ry. Chatterjia promoted.

M.R.Ry. C. Kodandarama Nayudu to be Sub-Assistant, 3rd class, vice M.R.Ry. G. S. Seshayya.

M.R.Ry. P. Rangaswami Aiyangar and M.R.Ry. Sundararaja Aiyangar are confirmed in the 3rd class.



THE JOURNAL OF EDUCATION MADRAS.

Vol. V.] DECEMBER 1891. [No. 12.

AN AMERICAN ESTIMATE OF THE JOURNAL.

It will doubtless be gratifying to our readers to know that the *Journal* has lately been widely and favourably noticed. Not only have the Madras papers very favourably reviewed and made copious extracts from it, but the same has been done by well-known papers in other parts of India. We have received, too, many sympathetic letters from educationists in England; and now very gratifying testimony has just reached us from the distant shores of the United States of America. The *School Journal*, a periodical which circulates largely in America, is pleased to speak of us as follows:—

The Madras (India) *Journal of Education*, in its sympathetic touch with progressive teaching, reads like a home magazine. It is impossible to feel the oceanic space between us, or the separating gulf of race condition, as we read:

"Perhaps in no country in the world has more attention been given to the training of teachers in recent years than in the Madras Presidency. Not only has a first-grade college been established for the training of secondary teachers and affiliated to the University, but in all the chief towns of the various districts of the Presidency training schools have been established, so that in the opinion of the Director of Public Instruction the supply of trained teachers is at present almost equal to the demand."

In the detail of training native students the following is full of suggestiveness to all discriminating teachers:—

"No one with the slightest pretension to educational experience in India will deny that the faculty of imagination among students is most conspicuous by its absence. A rigid caste system, a conservative religion, a stay-at-home people, and faulty methods of teaching are chiefly responsible for its continuous suppression.

The lamentable result is that words represent so many letters and not ideas to the youthful mind; that examinations are the *be all* and the *end all* of education; and that the average native is as innocent of original research and thought as a new-born babe. The faculty of illustrating what is taught, and of stimulating the imagination of the pupils, is one which needs developing *ab initio*.

We mention this in no egotistical spirit, but that our readers may know that others, farther afield than themselves, take a lively and sympathetic interest in the educational work of this Presidency. Such testimony should encourage us all to do our best in the good cause in which we are engaged.

SHORTHAND WRITING.

It is long since the need was felt of a rapid system of recording thought. Cicero, the great Roman orator, was on one occasion attended in the Forum by a body of shorthand writers; who recorded in brief characters the wonderful eloquence of that celebrated pleader. There are other indications that rapid writing was not unknown about the beginning of the Christian era. During the middle ages but little trace of it is to be found. With the invention of printing, however, the art came forth from its obscurity, and during the last three centuries more than two hundred different systems have been given to the world. The principle upon which is based all systems of Stenography or shorthand writing is the substitution of *simple* forms for the *complex* forms of the letters of the common alphabet. Like all other arts, it improved with the lapse of time, until now, in the splendid system known as Phonography, invented in 1837 by Mr. Isaac Pitman of Bath, it appears with all the ingenuity and brevity that can be desired in a method that professes to enable its writers to keep pace with the tongue.

The word *Phonography* signifies the writing of sounds, or the writing of words exactly as they are spoken. As one sign represents only one sound and every sound has its appropriate sign, when these signs are written and a word composed of any of them is presented to the eye, it is as easily recognized as if it had been spoken. The signs are not thrown together without order but are so arranged that they make a *natural alphabet of sounds* in which each letter has its proper place.

This cannot by any means be said of words composed of the English alphabet. Out of fifty thousand words estimated to be contained in the English language, very few, only about fifty according to some, are composed of letters whose alphabetical names give the sounds the words have when spoken. This evil arises from a very imperfect alphabet, so imperfect that *three* of the letters in it are useless and *thirteen* others are wanting. We therefore resort to a combination of letters or make a single letter represent two or more sounds. Simple words containing but two sounds, like *dough*, *know*, have to be spelt with a number of unnecessary letters, *a* has one sound in *fate*, another in *fat*, another still in *fall*, and still another in *father*. The Phonographic alphabet consists of 40 letters, 36 of which represent the 36 elementary sounds in the English language and 4 represent the diphthongs in *time*, *tune*, *toy* and *town*, the phonographic characters being simple straight lines and curves.

In the inaugural address, delivered in 1863 by Sir W. Armstrong, President of the British Association for the advancement of Science, he spoke of shorthand writing in the following terms:—

"The facility now given to the transmission of intelligence and the interchange of thought is one of the most remarkable features of the present age. Cheap and rapid postage to all parts of the world; paper and printing reduced to the lowest possible cost; electric telegraphs between nation and nation, town and town, and now even between house and house—all contribute to aid that commerce of ideas by which wealth and knowledge are augmented. But while so much facility is given to mental communication by new measures and new inventions, the fundamental art of expressing thought by written symbols remains as imperfect now as it has been for centuries past. It is intelligible that grown-up persons who have acquired the present conventional art of writing should be reluctant to incur the labor of mastering a better system; but there can be no reason why the rising generation should not be instructed in a method of writing more in accordance with the activity of mind which now prevails."

Who that is much in the habit of writing has not often wished for some means of expressing by two or three dashes of the pen that which, as things are, requires such an expenditure of time and labour to commit to paper? Why should we continue to write the word *communicate* with its perplexing series of ups and downs, amounting in number to forty, when by the brief, flowing characters of Phonography we may write it with three movements of the

pen? Why should we write the word *ought* with eighteen movements when we can write it with two?

The advantages of Phonography are so numerous, and some of them so important, that it is justly entitled to a place in our schools as one of the indispensable branches of study. And we hope the day is not far distant when it will be so considered and treated by the public. When that time arrives, people will wonder why it was delayed so long; so palpable will be the gain. This art is largely practised in Great Britain and the United States—so largely that nearly a million and a half copies of the first book of Phonography, called the Phonographic Teacher, have already been sold. It deserves to be introduced into every English school, if for nothing else than for the accurate pronunciation of words which students will easily pick up from Phonographic Readers, which spell all words as spoken.

To the newspaper reporter, it is of course indispensable. It is Phonography that has made it possible for the London morning papers to publish the Parliamentary debates of the night before. As the speeches are made, they are taken down by the *Times* reporters, who transmit their shorthand notes to the office of 'The London Times,' from which notes, the Phonographic compositors of that Press set up the speeches in longhand. Phonographic reporting has made speakers more particular about how their speeches will read when reported, than about how they will tell upon the hearers.

To literary writers, Phonography holds out advantages, which are by no means insignificant. Thoughts and ideas get perfected when they are clothed in words; and when so clothed, they should be secured. The more brilliant and beautiful a thought, the more fleeting and evanescent is its nature. To secure it, we must catch it at the moment it springs into being. If the writer can signify as much by one stroke as he now does by five, he can record five times as much thought. If we have only one stroke of the pen for every vocal sound we can write and report as rapidly as we talk, and thus retain that warmth, glow and rapture on paper which are now confined to speaking.

To the lawyer, Phonography probably offers more benefits than to the members of any other profession. It would enable him to take full notes of testimony and of the remarks of opposing

counsel, and to prepare his arguments more thoroughly, as by it he could put down his points as quickly as they occurred to him; and then he could revise and revise again until he was satisfied with the result, without feeling that he was taking upon himself more labor than he could spare time for. Again, the lawyer who could read Phonography readily, although he might not be able to write it with the necessary speed, could employ a phonographic clerk to take the notes, and then, as soon as the court adjourned, the minutes of the day would be ready for use. Otherwise, the reports would not be of immediate use to the counsel in the trial, as the reporter could not deliver the longhand transcript of one day's proceedings until the opening of the court the next morning; and then the counsel would have no time to read the proceedings of the previous day before going on with his case.

To Students of Colleges, it would manifestly be exceedingly useful, as it would enable them to take full notes of the Professor's lectures and at the same time to do it with much greater ease than they now write their imperfect longhand sketches. If students begin their study of Phonography while in the High School department, they will be able to utilize their knowledge while in the College department and get enough practice. A good knowledge of English is necessary for succeeding as a shorthand writer or reporter. Words, since they are reported as spoken, cannot be correctly transcribed into longhand by one who does not know the word and cannot therefore spell it in the ordinary way.

There are very few large establishments in which correspondence and writing in various shapes do not occupy a considerable place; and in all such offices, the phonographer must prove a useful assistant. The usefulness of phonography commends itself to all who have once availed themselves of such aid. Bank secretaries, railway managers, merchants, and heads of public offices receive every day tens and hundreds of letters, several of which require precise and carefully worded replies, some short and some long. Such letters have either to be dictated or written by the principal officers. The phonographic clerk saves their time because he more than keeps pace with the rate at which they can instruct him; and he saves their labour because he transfers to himself some manual work which, without him, they must of necessity do for themselves. The phonographer can receive quickly and

consecutively the fullest instructions on all points of doubt and difficulty; and his employers may rest content in the assurance that not only their intentions and ideas but even their very words will obtain faithful interpretation at his hands. Some heads of offices prefer writing their own drafts to dictating them. But it may be pointed out that, if they dictate their letters, they not only save labour, but time and money, as the time thus saved can be utilized in higher work by the highly paid officer.

The average rate of public speaking is 120 words a minute, the speed required of candidates for the Madras Higher Examination in Phonography. Some, like Dr. Miller, speak at about 100 words a minute and others like Mr. Eardley Norton at 180 words a minute. Most letters are dictated at 100 or 120 words a minute.

At the instance of Mr. Henry Cornish, Secretary to the Madras Chamber of Commerce and of the Hon'ble Mr. Mackenzie, who presided at the Anniversary of Pachaiyappa's College in 1883, the Trustees of Pachaiyappa's Charities opened a shorthand class in August 1884, for the benefit of the under-graduates of Pachaiyappa's College, Madras. This class was taught by Mr. Tom Luker, then of the *Madras Mail*, the best phonographer in Madras. Half the cost of the class was borne by Pachaiyappa's Trustees and the other half by the Hon'ble Mackenzie, the Hon'ble Sir Charles Turner, and a number of other gentlemen. Mr. Luker's class was discontinued in January 1886, when day and night Phonography classes were opened in Chengelroya Naicker's Commercial School. These classes continue to work, and seem to be the only classes in Madras for training shorthand writers. Of the shorthand writers trained in Pachaiyappa's College and the Commercial School, one is shorthand reporter to the *Madras Times*, two are shorthand writers in the High Court, one in the Mysore Dewan's Office, one in the Madras Railway Agent's Office, two were, and two others now are, in the Private Secretary's Office, and one in a Calicut firm. The emoluments of these vary from Rs. 20 to Rs. 140.

It takes 18 months to prepare College Students for the Higher Examination in Phonography, on passing which they prove useful as shorthand writers. A year's practice in reporting with a fair knowledge of English will make the candidate a fairly good reporter. The newspaper reporter has frequently to submit for publication an abstract of the speeches; he has therefore to practise

304

precis-writing. The Phonography Master of the Commercial School began his study of the subject in 1885, and the teaching of it in 1886. He became reporter to the *Madras Times* in the latter half of 1887. He reported the proceedings of the National Congress held in Madras in December 1888, and was paid Rs. 60 a day for that work. It is hoped that earnest endeavours will be made to open phonography classes in the mofussil and that arrangements will be made in Madras to create a supply of phonography teachers. He that begins phonography must work at it patiently till he becomes qualified to report. The key to success is unceasing practice and perseverance.

It is very necessary that shorthand writers write a fast and legible longhand, as they will have to rapidly transcribe their shorthand notes into longhand for submission to their employers. Eurasian clerks in local mercantile houses, who generally write a neat hand, will find it to their advantage to learn Phonography. One reason why Eurasians find readier employment in mercantile houses than Hindu lads is that the former, as a rule, write a much neater hand than the latter. Hindu youths must remember that good handwriting is an indispensable qualification for clerkships in all offices, public or private; if ability to report speeches is combined to good handwriting, the chances of employment will become much greater.

SAIDAPET,
18th November 1891.

K. S.

THE SPELLING OF "BANQUETING" AND "BENEFITED."

It is strange that in these days there should arise a controversy about the correct spelling of such words as *banqueting* and *benefited*, the spelling of which follows a rule that is at least as old as the times of Lindley Murray, and which we thought was known to every English schoolboy, viz., that if a word, ending in a consonant and having a long vowel or a diphthong which is equivalent to a long vowel in its last syllable, takes an additional syllable, the consonant is not doubled, as, *briny*, *floated*, *concluding*, *repeated*; if the vowel is short and the word be accented on the last syllable, the consonant is doubled on taking an additional syllable, as, *hotter*, *referred*; but although the vowel of the last syllable is short, if it be not accented on that syllable, the consonant is not doubled when another syllable is added, as *differing*, *reference*. According to the ordinary practice of English spelling, there are some exceptions.

to this rule. Words ending in *l* double the *l* in contravention of the rule as *traveller*. And it is usual to write *worshipper* and *biased* in spite of the rule. But Webster spells these words *traveler*, *worshiper*, and *biased* in conformity to the rule. The rule is a good one, and is generally conformed to, and it is a pity that any one should try to revive such a violation of it as *banquetting*.

EDUCATION IN BURMA.

We have before us the Reports of Public Instruction in Burma, which contain much readable and instructive matter. The Chief Commissioner complains of the length of both the Reports on Lower and Upper Burma; but for our part we readily forgive the Director for having rescued the Reports from the usual fate of official documents by investing them with information that is both novel and interesting.

There is evidently a grand field for educational work in Burma, as indeed there seems to be for most things. The productions of the country are both varied and valuable. The country is thinly peopled as compared with India, and there is much fertile land waiting to be cultivated. The country not only maintains the Burmese themselves with ease, but it provides a rare field to the Madras Pariah, whose thrifty and industrious habits meet there with their due reward. The Burmese are taking eagerly to modern education, and a most pleasing feature is the rapid development of female education, in spite of the fact that the monastic schools make no provision for teaching girls. Female education within the next few years should proceed with giant strides as the women seem to be exceptionally bright and intelligent. The resources of the country, their rapid development, the intelligence of the people and particularly of the women, will materially assist in overcoming the initial difficulties in the way of a wide-spread education. In Lower Burma something has already been done in the cause of Higher Education; but judging from the recent speech of the Chief Commissioner at Rangoon College, the results are not commensurate with the expenditure. The fact that only two of the B.A.'s, who have passed through Rangoon College, the only College of its kind in Burma, are Burmese, seems to show that the establishment of that College has not effectually stimulated higher education among the natives. The Government

authorities, too, as in India, complain generally of the inferiority of the *personnel* of the administrative and ministerial staff. Difficulty is experienced in getting Burmese engineers, lawyers, doctors and subordinate magistrates. The Commissioner attributes this in part to the character and idiosyncracies of the Burmans as a race. The Burman is at times either most provokingly 'casual' or most painfully 'bumptious.' Close observers have noticed that the Burman dislikes hard work, and that so long as he can get food and his 'smoke' for the day he is perfectly happy. Since the English took over the country, immigration has proceeded on a large scale, and the profits arising from the development of the resources of the country will go to the vigorous immigrant, and not to the happy-go-lucky Burman, unless the latter changes his ways. But the educational system is held chiefly responsible by the Chief Commissioner for the state of things mentioned above. He thinks that if the system were sound in its primary and middle stages a better outcome would be the results in the higher stage. 'All over Burma,' says the Chief Commissioner, "I find little lads who should be having their minds and faculties developed through the medium of their own vernacular, who ought in fact to be beginning their 'education' properly so-called—I find, I say, these children being laboriously 'instructed' and crammed through the medium of a foreign tongue." We have had occasion to express a similar opinion with reference to the educational use of 'English' in this Presidency. We therefore heartily agree with what the Chief Commissioner has so pointedly said on this important subject.

What seems like a blow to the cause of education in Lower Burma is the withdrawal of the Government from the direct management of schools. This has resulted in the Municipalities getting control over the latter. For the responsibility which this control involves it is evident that the municipalities are by no means fitted. They pet the anglo-vernacular institutions and starve vernacular schools. Some of the members are indifferent to the cause of education, and many have not 'the necessary leisure, educational experience, or sympathy to form an Educational Board and take educational matters in hand effectually.' The fluctuation, too, in the funds provided for education is a serious bar to the development of the latter. It cannot be expected that able and cultured men will take to the work if their salaries are subjected to steady reductions.

In Upper Burma there is almost a virgin soil for educational work, and the prospect is most promising. 'There is a strong demand from the people for education and from school managers for departmental supervision. Broadly speaking, from Mandalay southwards schools are plentiful, English, monastic, and lay. North of Mandalay the schools are scarce, and are almost wholly monastic. In the far north education is at a very low ebb; not only can very few of the people, who are of mixed descent, read or write, but many school managers have not even a tolerable knowledge of their mother tongue.'

But there are many obstacles to overcome before the blessings of education become diffused throughout Upper Burma. The advent of the Deputy Inspectors, in some cases, is regarded as an introduction to Government taxation, and accordingly it is extremely difficult to get reliable information regarding existing vernacular schools. In some cases the over-worked inspector has no time to visit all the schools of his district. The parents, too, often give but a most casual supervision to the education of their children, and boys are permitted in many cases to admit and withdraw themselves to and from particular schools for wholly inadequate reasons. Much has yet to be done, and that, too, in the most delicate manner, before the Department can avail itself entirely of the machinery of the indigenous schools. The Government and the Department are to be congratulated on the harmony which exists between them as to the advisability of utilising existing indigenous institutions in the pioneer work of education. The more conservative pôngyi are opposed to anything like secular education. But pressure is being brought to bear on them by the people, who see and appreciate the advantages of a combination of secular with religious instruction. When the monastic teachers thoroughly understand that the secular instruction may be left to properly qualified teachers, and that the national religion can still be taught by themselves, they will doubtless allow their institutions to take the lead in the education of the nation. Otherwise, education will be seriously retarded, and the pôngyis themselves must lose their position as the national teachers.

The backward state of the monastic schools or the pôngyi Kyaungs is attributed by the Director to three causes:—the ignorance of the average pôngyi, the tender age of the pupil when he

enters and leaves school, the want of ambition in the Burman. 'An unexpected visit, too, to the school will show the boys going in and out of the school at their pleasure, or dawdling over their lessons, the Upazin fast asleep, and the pôngyi dividing his attention between his betel-box and some old gossip who has brought him a bunch of plantains and a trifle of news.' Moreover, although the pôngyis are generally in favour of the Government system, very few of them are fitted to carry it into effect. The training of teachers must be systematically carried on if any good is to be done. It is greatly to be regretted that a small faction of intriguing pôngyis at Mandalay, who think that Buddhism cannot sanction the acceptance of the Government system, has succeeded in creating an attitude of sullen discontent among many of the pôngyis. It is to be hoped, if only for their own sake, that this is but a passing phase of feeling; if not, it will go hard with them, seeing that the education of the masses in Upper Burma will depend largely on the recognised lay schools. These latter were originally intended for girls, as the canon law prohibits a pôngyi from instructing a girl. Many boys, however, attend the schools, but seem to suffer much on all points in a comparison with the girls. The latter seem to have the brains, and are more diligent and regular. Later on, as wives and mothers, they become the mainstay of the family. The lay schools, unless the opposition of the few influential pôngyis to the progress of national education is removed and the ecclesiastical ban upon the certificated teachers be taken off, must, perforce, become the national schools.

As regards existing English Mission schools, although there has of late been a marked improvement in their working, there is still a woeful lack of properly qualified teachers. The Director states the astounding fact that not a single teacher holds a University Entrance certificate, few have passed the Middle School Examination, and some have passed no departmental examination whatever. So long as the salaries offered are so scandalously low as they are at present, not much improvement can be looked for in this direction.

The possibilities of a great future exist in Burma. But the Burman himself, unless a radical change in his character takes place, will have none of the credit of assisting in forwarding the great work, while the material benefits accruing from the same will

deservedly go to the outsider. In particular, there seem to be great possibilities for education. These possibilities will be realised the sooner if the words of the Chief Commissioner are taken to heart as regards the use of English in the educational curriculum; if perfect harmony exist between the Government and the Education Department, indications of a want of which not being absent in the Reports before us; if the educational machinery be as simple as possible and the universal tendency in new countries to multiply rule on rule, scheme on scheme, be kept under proper control; if existing indigenous institutions be widely utilised; and if no pains be spared to procure intelligent, well-trained and well-paid teachers. The Director of Public Instruction deserves the sympathy and hearty co-operation of all well-wishers to the cause of Education in Burma for what he has already achieved.

AGRICULTURAL EDUCATION IN THE MADRAS PRESIDENCY—(continued).

Here let us stop for a while and consider how best the education can be imparted. The plan of operation depends upon a thorough understanding of the present situation. One class of reformers advocates that the South Indian ryot is eminently practical, that he does not stand in need of any new fangled ideas of cultivation, that he has nothing to learn from the Western science of agriculture, that the "crops now grown are the outcome of long experience and should therefore be accepted as, on the whole, the best suited to the soil, climate and habits of the people; that this being so, it is useless to try and change habits and tastes, that the sound policy is to increase the produce of indigenous crops, that this can only be done by "high farming" which means manure, or its agricultural synonym, money. In fact, this class of writers says "Give the ryot the means wherewith to carry on cultivation, and he will convert sand into gold." Arthur Young believed the magic of *property* converts sand into gold, but these say money will do it; no doubt both are correct. But it is feared money, without the compensating qualities of thrift, industry and perseverance on the ryot's part will only place more temptation before him, and not raise him a bit from his abject condition. The other party, whose sympathies with the ryot are as genuine as those of the first, asserts that the South Indian

ryot is, no doubt, practical in so far as he has the accumulated experiences of past ages to guide him. But as those experiences are based upon altogether a different state of conditions from those existing now, his practical knowledge is not after all so very valuable. "In old times a scanty population dwelt in villages shut off from the rest of the world by want of communications and by fiscal barriers, with a consequent absence of trade both foreign and internal; hence a system of self-sufficing farming and pretty village industries, under which system there was little more than the mere local market for these goods; only the better soil was tilled, the remainder being left to grow wild field grass for common grazing; the simple village needs were supplied within the village, while any surplus, finding no external market, was stored for use in years of scarcity. Hence local custom became stereotyped almost into religious sentiment, and the isolation of the ryot, both mental and industrial, became an almost impracticable fence. But practically within a generation, certainly within 50 years, external conditions wholly changed; communications rapidly developed both by sea and land, so that an immense export trade, due to the low prices of Indian produce, and an equally vast internal trade have sprung up; hence the self-sufficing system is in a rapid transition to the system of farming for profit or trade; any surplus produce is easily exchangeable for silver which in turn is equally easily spent; village industries have decreased with the opening up of foreign trade, so that larger numbers take to tilling the soil. . . . Private effort is growing less able to deal with adverse conditions, or to combat natural difficulties; the old communal organisation has largely given way under the rapid influx of new ideas. Hence village or local combination for the execution of protective works is daily growing more difficult; individual welfare and success are more and more becoming dependent on individual effort, while as yet the individual is not strong enough, or is insufficiently provided to meet the changes."

The above are the eloquent words of Mr. F. A. Nicholson, than whom no better friend of the agricultural population could be found, and all who have had facilities for studying the economic condition of this Presidency will subscribe to them. To shut our eyes to the dangers of our situation, praise the ryots with fulsome adulation, and abuse the Government as the author of all misery, costs us

nothing. But it is not courageous, neither is it honorable. A belief in the eternal fitness of things is a grand and noble idea for a philosopher freed from the cares of this world. But a people struggling for existence, with famine staring in their face, with industries almost died out, require some better pabulum. Evidently we are "lulled by the langour of the land of the lotus." The influence of knowledge upon agriculture has been well recognized in Europe and America. The present advanced state of British agriculture is due to the intelligent application of scientific truths to ordinary farm practices. "The dull plodding labourer originates nothing, any more than the beast which he drives." It is the man of science, of learning, of observation and skill, who has brought European agriculture to the basis of a science. The success and improvement of agriculture must depend mainly upon the education of those who pursue it, and any amount of tall talk about the shrewd intelligence of the ryot will not improve South Indian agriculture in the least. What then is the education best fitted for the ryot? "One which appeals to his daily life; one which teaches him about the objects surrounding him; one which teaches him *about* things and by means of things, one which teaches new thoughts about things; one which is carried on, into, and by his subsequent daily life; one which suggests modes of action, not so much didactically as by displaying the principles on which his practice is based, the conditions under which he works, the causes of the difficulties which he feels, the methods elsewhere adopted, and the results of such methods."

Is this practical? The history of France, Germany, Switzerland, Belgium and Holland shows perfectly that the scheme is practicable. Even Ireland, torn as it is by agrarian discontent and political agitation, has adopted excellent plans for the agricultural condition of the rural population. France, with its small farms and peasant proprietors, presents an admirable picture of rural life. "Elementary agriculture is taught in primary schools, where children learn to distinguish between plants, grasses, and soils; often a plot of ground is attached to the school which serves as an experimental farm. The school teachers are supplied with training in the subject by departmental professors, who under the direction of ministers of education, give courses of lectures in the Normal Schools. The rest of the system of the agricultural education falls under the department of

the Minister of Agriculture." . . . " Besides these schools in the general practice and science of agriculture, there are special schools, such as the sheep-farm, the dairy, &c." Now, from the above extracts, it is clear that the agricultural teachers of the primary classes are to be drawn from the District Normal Schools, which should be provided with, not only an agricultural lecturer, but also a farm for demonstration as well as experiment. The lecturers are to be drawn from the Agricultural Colleges. The Normal teachers sent out of the District schools, say, after a two years' course, may be attached to primary schools with a small farm of five or six acres. The labour of the boys may be utilised for the farm work, and if the teacher is assured of a fair share of the produce, he will have sufficient incentive to make the scheme a success, as in Ireland. Small industries, such as kitchen-gardening, poultry-keeping, &c., may be carried on with advantage. The children of the ryot show a natural inclination for such sort of work, and if the teacher would take a little trouble to store the juvenile mind with sound practical knowledge of poultry-keeping, kitchen-gardening, &c., the foundation for future observation and study by the rural population would be well laid out. It has been asserted by competent authorities that the peasants of France were able to pay off the heavy war indemnities several times over, because the education they received enabled them to work and earn money. May we not hope that similar good may accrue to the Indian ryot by the introduction of a general agricultural education?

(To be continued.) "SPECULUM."

INTELLECTUAL RESULTS IN INDIA.*

I have undertaken to say a few words on a subject of some practical importance to students, and trust that my words will have the effect of stimulating you, young men, to greater intellectual activity, of making some of you value knowledge as an end in itself, instead of as a means to secure a degree and a Government appointment. I am aware that I have not any special qualifications for addressing you on such an important subject; but as one who takes a deep interest in Associations of the kind to which you have the honour of belonging,—Associations that are becoming quite an indispensable feature of student life in India, and are signs

* Paper read by S. Sattianadhan, M.A., LL.B., (Cantab) at the Anniversary Meeting of the Presidency College Literary Society, 12th November 1891. Mr. J. D. Rees, C.I.E., Private Secretary to H. E. the Governor, in the Chair.

indicative of some kinds of intellectual activity.—I may take for granted that my words will not altogether be without effect. I was reading the other day an important article in the *Quarterly Review* on that wonderful country Germany. The writer of the article is a great admirer of Germany, and he is certainly justified in his admiration of that grand old country, whose young Emperor is at present the most popular actor on the European boards. Speaking of the greatness of Germany he says that it is almost entirely due to its poets and philosophers. A century ago Germany was chaotic and impotent, it has now become "whole in herself, a common good" to her children; a bulwark of law and order among peoples given over to "anarchy and self Government by the basest"; a noble and puissant nation; and the real makers of Germany have been its poets and philosophers—men such as Liebnitz, Lessing, Goethe, Schiller, Kant and Hegel. Or, in other words, the writer tried to impress by means of a concrete instance the truth which few would deny, viz., that a healthy national life can only be the outcome of a vigorous intellectual activity. It is a truth which needs being impressed deeply on the minds of some of our countrymen, who imagine that a nation can be born in a day by means of political agitation. If the history of Germany, if the history of England, if the history of any country in the world that lays claim to greatness, teaches us anything, it is that the development of national life does not so much depend upon political unity as upon the intellectual, moral, and spiritual unity achieved by thought. I had the unique privilege once of listening to an admirable course of lectures at Cambridge on the expansion of England by that well-known historian, Professor Seeley. Those lectures have since been published in book form, and to some of you present the book, I believe, is familiar. In those Lectures Professor Seeley tried to prove that India was conquered by foreigners because of the absence of a nationality; and then he pointed out how all the elements of a common nationality were absent in India, viz., (1) community of race or rather the belief in a community of race; (2) the sense of a common interest and the habit of forming a single political whole and (3) a common religion. But all the three elements which Professor Seeley mentions imply one important condition, and that is intellectual unity. Where there is healthy intellectual activity there is sure to be awakened a spirit of genuine freedom. Intellectual emancipation is the first step towards political freedom. Where there is an absence of intellectual excellence of an abiding character there is sure to be only a vague patriotism, not a living, a life-giving patriotism. Carlyle in his work in "Heroes and Hero worship", a book, by the bye, which all of you, I trust, will read, if you have not done so already, puts a question to Englishmen, and that is this:—"Will you give up your Indian Empire or your Shakespeare? You English never have had any Indian Empire or never have had any Shakespeare." And then he answers the question in his own characteristic style:—"Really it were a grave question. Official persons would answer doubtless in official language; but we, for our part too, should not be forced to answer:—'Indian Empire or no Indian Empire, we cannot do without Shakespeare! Indian Empire will go, at any rate some day; but this

Shakespeare does not go, he lasts for ever with us; we cannot give up our Shakespeare." Here, gentlemen, is the secret of true patriotism, and what a contrast it is to the milk and water type of patriotism of an Indian. An Englishman's patriotism is the true patriotism, for he can point to intellectual excellence of an abiding character in his nation even at the present moment. Consanguinity, community of language, common political institutions, all these things may be present and yet there may not be national development unless there is intellectual activity of a high order. Of course according to Professor Seeley a common religious creed and cult constitutes the most effective power of a nation; it is this that satisfies the necessity for a fellowship of gods and men, but where that condition is absent we have to fall back upon the bond of intellectual activity. Now what is the state of intellectual activity in India? If the intellectual activity of our country is to be measured by the number of schools and colleges, we have, by the number of students who study English, and the number of young men who pass through an Indian University course, then we have reason to take a hopeful view of things. It is only 36 years since the famous despatch of Lord Halifax, which may be called the Magna Charta of national education in India, took effect. During that short space of time, English Education has been making very rapid progress indeed. The system of secular education on Western principles had at first to meet with some serious obstacles. There was at first some prejudice on the part of influential natives against everything Western. The inertia of ages refused for a time to be stirred. But our sympathetic statesmen stood firm, and so the shocks went by. It was in the midst of the tumult of the Mutiny that the three Indian Universities of Calcutta, Madras and Bombay were calmly founded. The country is now covered over with a network of schools extending from the indigenous village institutions up to the highest colleges. When the present education system was first organised in India, there were only 51,000 schools and colleges with about 930,000 pupils. In 1870-71 the number of schools rose to 85,000 and that of pupils to 1,700,000. In 1881-82, the number of institutions was as large as 116,000, and the number of scholars 2,700,000. The three Indian Universities that were incorporated on the model of the London University have also been doing useful work in the country, and a fourth University has lately been founded at Lahore for the purpose of encouraging oriental studies. These Universities control the whole course of higher education and turn out year after year a larger number of graduates and undergraduates. The quality of instruction given in our schools and colleges has highly improved. In our Presidency Sir Thomas Munro was the first to draw the attention of the local Government to the subject of education. In 1822 he sent out a circular to all the Collectors asking them for information as regards the actual state of education in the several districts. The Collector of Bellary gave full information on the subject. Each District had a large number of indigenous schools and colleges. As to the nature of instruction in these schools the Collector of Bellary wrote as follows:—"Every school-boy can repeat

verbatim a vast number of verses of the meaning of which he knows no more than the parrot which has been taught to utter certain words. Accordingly from studies in which he has spent many a day of laborious but fruitless toil, the native scholar gains no improvement, except the exercise of memory and the power to read and write on the common business of life. He makes no additions to his stock of useful knowledge and acquires no moral impressions. He has spent his youth in reading syllables, not words; and on entering into life he meets with hundreds and thousands of words, of the meaning of which he cannot form even the most distant conjecture; and as to the declension of a noun or the conjugation of a verb he knows no more than of the most abstruse problem in Euclid." The above picture may be taken as typical of instruction imparted in all indigenous schools. Of the instruction in the so called colleges it is said:—"For twenty years the students commit to memory *mantra* after *mantra*, *sloka* after *sloka*, comment after comment, until they are able to superintend every ceremony of the Yajur or Black Veda." What a contrast does this afford to the nature of instruction our students receive in the schools and colleges at the present moment! To say that the present system of education is perfect would be claiming for it a right which even its warmest supporters do not claim; but there is not the slightest doubt of the fact that, compared with the instruction that Indian students received before the present system was introduced, the quality of instruction of the present day is infinitely superior. The question has over and over been asked—What are the effects of the western system of education? What good has it done to the hundreds who have passed through our Colleges? Has it made them better citizens, better members of society, better men? We are not in the least justified in taking a gloomy view of things. That English education has done much for the country and the people nobody would dare deny. Allow me to quote from the speech of one of India's foremost educated sons, bearing on the effects of English education. "Numbers of fairly educated natives are met with employed in various pursuits, usefully and honourably. We see excellent specimens of them as Government servants, as Court Pleaders, as Doctors, as Engineers, as Merchants and as general members of society, such as would do credit to any nation. The progress of education has decidedly affected the moral tone of the community. It has created an intelligent native public opinion. It has brought into existence a number of reformers, who are striving to improve the existing state of things in various respects. From what has been thus far proved it may be legitimately inferred that the native intellect is capable of indefinite development under favourable circumstances. We need not be oppressed with any suspicion that Nature has constituted us a race apparently inferior to any on the face of the earth. Our intellectual capabilities being such, all will depend on the way they are developed." These are the words of Sir T. Madava Row. There is not the slightest doubt that educated natives are deeply stirred by Western education, and that an active process of mental fermentation is setting in. Our educated young men are all the better for their training. Western education is bearing fruit in uprightness of conduct,

in an improved standard of rectitude, in zeal in performance of duty, and in staunch loyalty; but at the same time the question remains to be answered, what are the intellectual results of higher education in India. There certainly can be no two opinions as to the stark inefficiency and barrenness of higher education in India. Sir Grant Duff in his Convocation Address asked:—"You show us your machinery, your University, your schools and much else. You are obviously spending a great deal of money upon what you describe as the Higher education, but where are your results?" Then he went on to add that there must be something radically wrong in the turn higher education had taken in this Presidency, seeing that it had not even succeeded in creating a desire on the part of the people of South India to learn, and to tell, more about themselves, and the country in which they live. Another critic, Sir Lepel Griffin, spoke in still stronger terms of the sterility of higher education in India. If you will allow me I shall quote his words:—"The profound and extensive learning of the man who takes first rank in the scientific and literary world of England is as far as the star Sirius above the culture of the University student of India. His learning is superficial to an extraordinary degree, and although many naturally clever men have passed through the educational mill, I do not remember in the last quarter of a century, a single original work written by a native of India on any subject of general, literary, political or scientific interest which could fairly take rank with productions of the second or even the third class in England. In poetry, natural science, political economy, logic, philosophy, history, fiction, medicine, the intellectual field is barren. Potential depths of originality may be concealed in the Indian people, but so far they have had no external expression." The above is rather an exaggerated picture of the present intellectual condition of India, but at the same time there is some foundation for Sir Lepel Griffin's powerful indictment. Modern Indians have made no discoveries in physical science, they have taken no step forward in inventive achievement, they have given no proofs of profound erudition, nor even of scholarly taste, they have penetrated no depths of metaphysical thought, they have made no bold advance in the domain of philosophy. They are clever imitators, no doubt, but they have not as yet given any striking proof of original capacity, of the presence of any creative power; they have not added anything new and striking to the things already existing in the world. Whilst fully admitting the comparative barrenness of the Indian intellectual field, I am by no means disposed to take the view Sir Lepel Griffin takes, when he says that the cause of this barrenness is the effete nature of the native intellect. However gloomy the present state may be we are not in the least warranted in saying that the Indian soil is exhausted, and that there is no use in applying European manures, that the Indian, like the Greek intellect, has grown old and decayed and hence lost its creative power. The present deplorable state of things is due partly to circumstances that can be remedied and partly to circumstances over which we have no control whatever. There is no country in the world that presents so striking an anomaly as India does with respect to its intellectual development. Here we have the strangest of incongruities, namely

a vast population being compelled as it were to pursue higher studies by means of an entirely foreign language, which is as strange to them as Chinese is to an Englishman. Macaulay decided that the Indian people cannot be educated by means of their mother tongue, and the present system of education is the outcome of that decision. No one would deny that the English language stands preeminent among the languages of the West. No one would deny that the English language "abounds with works of imagination not inferior to those of Greece; with models of every species of eloquence; with historical compositions that have never been equalled; with just and lively representations of human life and nature; with the most profound speculations on metaphysics, morals, government, jurisprudence and trade; with full and correct information respecting every experimental science;" no one would deny all this, but nevertheless it must be remembered that English is a foreign language, and a most difficult foreign language, a language, to use the words of an old Sanskrit pundit which makes p-u-t read put (poot) and c-u-t, cut (kut), a language which is governed by the most erratic rules of pronunciation. To acquire such a language is no easy task. The best part of a student's life is exhausted, I won't say wasted, in acquiring this language. I think it takes fully fifteen years to acquire the language thoroughly and accurately, and it isn't all that succeed in acquiring a perfect mastery of English within that period. At a time when an English lad of ten revels in reading volume after volume of English books descriptive of human life and human nature, and stores his mind with correct information on every important subject, the Indian lad spends his whole energy in mastering the rudiments of the English language. There is no time for the development of his powers of observation, for the drawing out of his intellectual energies. I do not for a moment disparage the study of English. We have gained a great deal by having been initiated into the mysteries of Occidental learning. We have had our prejudices overthrown, our intellectual tastes purified, we have become inheritors of the intellectual achievements of all the Western nations; but at the same time it must be admitted that all this gain has not been without its corresponding loss, loss of energy, loss of creative power, loss of originality. Our acquisitive faculties have been tasked to the utmost; no wonder that our creative faculties have suffered in consequence. I for one would not for a moment advocate a return to the Oriental system of education which Macaulay condemned a little too severely. It is of course too late to adopt a new course, to substitute the vernaculars or the Indian classical languages instead of English as the medium of instruction; but under the present circumstances it is unreasonable, it is positively cruel, to expect much originality from Indians. Let us for a moment imagine that Latin or Greek is adopted as the medium of instruction in schools and colleges in England, would it then be possible for Englishmen to produce the same number of original works in Latin or Greek as England has now produced. In accounting, therefore, for the comparative barrenness of the Indian intellectual field we should never lose sight of the barrier of language. When future generations of the Indian races become, through the influence of hereditary trans-

mission, naturalised to the English language, better results may be expected. In the meantime let us remember that the Indian intellect is undergoing a silent but a most marked transformation, and that it is all the result of Macaulay's Minute. We should not also lose sight of the fact that the present system of education is not without its defects. It has been pointed out that the education given to an Indian youth is wanting in thoroughness and accuracy. As a consequence we have immaturity of thought, reckless generalisation, subjection of reasoning to imagination, and absence of original reflection. The whole system seems to make education subsidiary to examination and not examination to teaching. The undue importance attached to examinations has resulted in the cultivation of quick superficiality and power of cleverly skimming over a subject, and the diffusion of energies over many subjects that are likely to pay at examinations. All this produces an incapacity for original work. It is, however, encouraging to find that our educationists are alive to these defects, and are endeavouring to remedy them. The able editor of the *Journal of Education* advocates the establishment of Teaching Universities at one or two of the largest and most influential centres in India. His suggestion needs the thoughtful consideration of all those interested in higher education. Whether anything practical will come out of the suggestion or not, specialisation of study, the concentration of the intellect upon particular branches of knowledge—this should be the chief recognised feature of higher education. Our Universities and Colleges should therefore enable the young to follow systematically that line of study to which their aptitudes direct them, under first-rate instruction. Our social customs have had something to do with the deterioration of the Indian intellect. What can be expected from young men who, at a time when they should devote their whole time and attention to study and the cultivation of their mental powers, are burdened with a family, and are worried with the cares and troubles that are naturally the result of a married life? Much attention should also be given to female education. The future greatness of India depends greatly upon the enlightenment of India's daughters. Every attempt should be made to make the Hindu home bright, cheerful, and happy; for nothing tends to develop the intellect so much as cheerful surroundings and happy associations. Our students should not neglect physical education. Mental development without any attention paid to the body will always be barren of results. What with acquiring a foreign language without the least affinity to the vernaculars, and having to pass examination after examination, is it any wonder that the severe strain becomes unbearable and leaves our young men effete and useless? The poverty of the country is another circumstance that ought to be taken into consideration in accounting for the present intellectual condition of India. We have not a class of rich men who can devote their time solely to intellectual pursuits. The moment a graduate takes his degree he is obliged to seek for an employment to earn a livelihood. Sir Grant Duff was therefore right in impressing upon us the supreme importance of those two maxims:—Get wealth, get material civilisation. I have pointed out some of the causes

that account for the comparative sterility of the Indian intellectual field. Notwithstanding all these difficulties in the way we have reason to be proud of what we have achieved already. Sir Lepel Griffin is entirely mistaken in saying that during the last quarter of a century not a single original work has been produced. I can name more than a dozen Indian authors whose works can fairly rank with some of the best productions of Englishmen. The well-known author of "Maxima and Minima," viz., the late Professor Ramchandra, was considered by no other than DeMorgan, the famous mathematician, as an original genius of a remarkable order. A celebrated Cambridge mathematician once told me that he set a problem for the Mathematical Tripos, basing it upon Ramchandra's "Maxima and Minima" and with the exception of a few that headed the list, none were able to solve the problem. In the late Toru Dutt, a young Bengali Native Christian lady, some of the leading literary men of England found a poet of no mean powers. Mr. Edmund Gosse writes as follows in the preface to her poems that have been published by an English firm:—"It is difficult to estimate what we have lost in the premature death of Toru Dutt. Literature has no honours which need have been beyond the grasp of a girl who, at the age of twenty-one, and in languages separated from her own by so deep a chasm, had produced so much of lasting worth. . . . When the history of the literature of our country comes to be written, there is sure to be a page in it dedicated to this fragile exotic blossom of song." Dr. Bandarker of Bombay is considered to be one of the best orientalists of the day. A number of Bengali gentlemen have earned a lasting fame by literary productions in English, among whom I may mention the Rev. Lal Behari Day, late Professor in the Hooghly College, and Mr. Dutt of the Bengal Civil Service. In our own Presidency, Mr. Ramakrishna Pillai has produced a work in English—"Village Life in India"—that has won the praise of Sir Grant Duff. Some years ago the London Academy had an appreciative review of a mathematical work in Hindi on the differential calculus by Pundit Sudhakara Divivedi, of Benares. Speaking of the work the reviewer said:—"It is the first step India has made in independent scientific research in modern times; and the author deserves the highest praise for the masterly manner in which he has dealt with his difficult subject." As statesmen, men like Sir Salar Jung, Sir T. Madava Row, Ramaiengar and others, as religious reformers, men like Ram Mohan Roy and Chunder Sen, and as social reformers, Pundita Ramabai, Vidyasagar and others have shown an intellectual energy, moral firmness and practical originality that would have done credit to any nation in the civilised world. All these and many more, whose names I might mention if time permitted, have all been the products of the last quarter of a century. I say, therefore, that the Indian intellectual field has not been exhausted. On the contrary we are just accommodating ourselves to environment that has hitherto been so unfavourable to the development of creative power. Within half a century more we shall become quite at home in our surroundings. Our future is a glorious one. Let *Nil Desperandum* be our motto, and we shall yet show to the civilised world that we are not only apt and facile

imitators, but that we have genius for original intellectual work and that we can produce results that will even excel the past splendours of Hindu literature and art. Before I conclude kindly allow me to make a few practical suggestions to you. Don't think your education is over as soon as your College and University course is finished. If you were to imagine that because you have learnt so much at College you have little or nothing more to learn in life you are sadly mistaken. Be students all the days of your life. Whatever you learn, learn it thoroughly. Try to acquire habits of extreme mental accuracy. Don't take anything at second hand. You have, no doubt, to devote your attention to several subjects, but the recent changes in the University curriculum encourages specialisation. A very successful Indian Professor used to say to his pupils:—"If you wish to be great you should have a hobby—go mad over a subject." Be careful to verify references. Cultivate the habit of going into details. If there is anything that has made the English nation so very great it is their business capacities, the spirit of system, order and calculation, the attention to details and the subordination to details. Cultivate many habits of thinking and reading. Every student should possess a library of works selected by an able and judicious guide. Read books with critical, enquiring thought. Remember that "the utility of reading depends not on the swallow but on the digestion." It has been said that we suffer from an excess of opportunities; we should, therefore have the nerve to reject. "Books have brought some men to knowledge and some to madness," says an old writer. This age is remarkable for the development of periodical literature, but it has been pointed out that periodical literature has debilitated to some extent the mental fibre of the English nation, because it has encouraged thoughtless, fragmentary reading. Don't therefore attach too much importance to periodical literature whenever it is possible go to the very source of knowledge, not to mere compendiums and "made easy" series. "To read from the pricking of some cerebral itch," says Mr. Frederick Harrison, "rather than from a desire of forming judgments; to get like an Alpine stripling to the top of some unscaled pinnacle of culture; to use books as a sedative, as a means of exciting a mild intellectual titillation, instead of as a means of elevating the nature; to dribble on in a perpetual literary gossip, in order to avoid the effort of bracing the mind to think—such is our habit in an age of utterly chaotic education." Avoid books such as those of Reynolds, which chronicle filth, and putrescence and corruption, however diabolically ingenious they may be. To be addicted to the reading of such books is a positive vice. The future intellectual greatness of India depends upon our young men. There are no doubt forces at work that to some extent cripple their powers and stifle their energies, but on the other hand remember that man has a power within him to overcome circumstances. We can create our own circumstances. We have been roused from the sleep of ages. An awaking change is felt throughout the country, the Indian intellect has been stirred, its energies have been directed in new channels, and if we use our opportunities aright, if we are imbued with the spirit of true patriotism, if we are actuated by unselfish motives, if

we make others share the privileges which we enjoy, we shall yet become a noble nation, "a noble and puissant nation," to use the sublime language of Milton, "rousing herself like a strong man after sleep and shaking her invincible locks, or like the eagle renewing her mighty youth, and kindling her undazzled eyes at the full midday beam, purging and unscaling her long abused sight at the fountain itself of heavenly radiance."

OUR PROFESSION.*

Lord Bacon said,—"Every man owes a debt to his profession." To the profession to which we belong this debt is as much greater than that belonging to other professions, as the mind and its wants are more important than the body and the temporal wants of man. If there is such thing as one work on earth involving more responsibility than another, that work is Teaching which has for its end the preparation of immortal beings to enjoy the highest good here on earth and to be ready for the beyond. Our profession is a peculiar one, and the preparation necessary for it so peculiar, that comparatively few make the work they undertake, in its broadest sense, a success. In order to apprehend this preparation it is necessary that we have clearly before us the end in view which our profession seeks. As I understand this end it is threefold: (1) Education is to secure a harmonious general development of all the capacities belonging to humanity. Mrs. Brander once expressed this idea to me in two words—round development, (2) Education is to develop into a harmonious relation to life the special capacities of the child, (3) Education must check and arrest tendencies in the child which interfere with the equilibrium of his full development. We who are engaged in that department of our profession known as general school work, must have a special regard for those principles which belong to the first and second divisions which I have made or we fail hopelessly to discharge the debt we owe our profession.

The work required of us is to develop roundly the capacities of the child during those years when he is most susceptible to impressions. At this stage of the child's development no outside influence is more powerful than that of the teacher's character. In the school room the teachers should exhibit those qualifications which a certain writer on pedagogics sums up thus:—

"A wise Legislator.

A righteous Judge.

A prompt Executive.

An efficient Workman.

A competent Leader.

A liberal Partisan.

A pleasant Companion.

A warm Friend.

A good Man."

Well may we exclaim, "who is equal to this! A teacher must be a model member of the human family, a model in manners, a model in scholarship, a model in virtue. We need to be impressed with the overwhelming importance of the work we have

* A Paper written by Miss Dryden and read by Mrs. Brander at the Annual Meeting of the Association of Women Teachers, November 7, 1891.

undertaken. We need to feel that our mistakes, though they may not ruin us, may permanently ruin our pupils. Keep constantly in mind, teachers, the great work you represent. Ours is a noble work, we should enter upon it with motives the purest that can actuate the human heart; we should be confident of our ability to discharge the duties devolving upon us; lastly our motto should be to

"Think truly, and thy thoughts
Shall the world's famine feed;
Speak truly, and each work of thine
Shall be a fruitful seed;
Live truly, and thy life shall be
A great and noble creed."

In general school work the teacher has before her to give out knowledge, to open the inward eyes of the child to take in the beauties of nature, to be charmed by the good, to be proud of the earthly temple which he owns and guard it carefully, to aspire toward the cultivation of all the powers of the mind. In order to discharge this duty the teacher needs to labour diligently and continually to improve herself. The very nature of the profession to which we belong requires that our minds be kept fresh from the store-house of knowledge. Since we are awakening the young mind to a consciousness of its capacities, we must make a study of the hidden principles which guide the human mind, lest evil result from our careless touch of some secret spring of action. A desultory reading, a careless study of whatever happens to be the *fad* of the day will never secure for us the self-culture we need. Every teacher should pursue systematically some branch of study. This, if faithfully done year after year, will keep one from stagnation. Then we owe it to our profession to do a certain amount of professional reading and to collect a professional library. What would you think of a physician who took no interest whatever in the development of the science of medicine? I can have very little regard for those who call themselves teachers yet know nothing of the history of education, nothing of its progress, nothing of the efforts which are now being made to harmonise the science of education with the new conditions of society.

No time for self-culture! If you cannot find time, better leave the profession. Better by far become a common cooly than attempt to guide and train children to become the intelligent and fearless sovereigns of the whole creation when you yourself are not a living example of the advantages and enjoyment which learning alone can bestow. Emerson said, "The greatest gift from God is the Teacher." Our profession ranks high. Its duties require self-sacrifice, self-denial, and those who are not ready to endure these should not be found in our ranks. The school room is not the place for those who are on the lookout for something better, nor is it the place for those who can find nothing better. The school room is the place for those only who are willing to work and live truly, nobly, without wealth, and unhonoured by the world. May the day soon come when it can be said of all who belong to our profession,

"He, where'er he taught,

Put so much of his heart into his act

That his example had a magnet's force

And all were swift to follow whom all loved."

Under the third head of the end to be secured through education and as belonging especially to the work of those in the common school room, I placed the duty to

check and arrest tendencies in the individual which would disturb the equilibrium of his full development. In other words, it belongs to our profession to fit our training to each child so as to counteract any disadvantages which might arise from heredity, from social environments, or physical infirmities. I doubt if in any civilized country you can find more need of teachers regarding this part of their work than here in India. Our profession requires that we be leaders in the work of progress. Here in India, where heredity so powerfully influences every child, where social environments are often the most degrading, where so little regard in the home is paid to physical development, there devolves upon the teacher a double responsibility to make her work contribute toward the progress of the human race. In India, if anywhere, the teacher must keep in mind the fact that education trains a child for his own sake, for his country, for the race. Teachers, I would have you grasp the magnitude of the work before you. Away with all narrow ideas! away with the thought that if your pupils pass a good examination you have done well! If passing certain portions is all you have gained from your study of the Code you have done badly. Underlying all these portions is the word progress, a development of the physical, the intellectual, the moral natures of the children.

How are we to proceed in order to secure the equilibrium of the child's development, is a question frequently asked, but seldom satisfactorily answered.

Not long ago I read a book by a French writer entitled, *Education and Heredity*. The key-note of that book was *suggestion*. It is a principle I had known but never recognised, I had often seen it in operation, but had never before heard it put into words. Through suggestions we are able to check and overcome many evils which descend to a child through heredity. And just as surely through suggestions we intensify and create tendencies in children. The rule works both ways. Shakespeare has put into words the power belonging to suggestions.

"A man can hold a fire in his hand
By thinking on the frosty Caucasus;
Or cloy the hungry edge of appetite
By bare imagination of a feast;
Or wallow in December's snow
By thinking on fantastic summer's heat."

Children are constant imitators, and whatever of good or evil the teacher's life suggests becomes to a certain extent the child's ideal which he constantly aspires to reach. We all know how powerfully the character of heroes and heroines in novels influence the young. Who among us has not seen young people imitating these exaggerated characters? Indeed I wonder if there is not among us some who have felt such an influence at some time or other over their own lives? All these books do is to suggest ideals, and these suggestions have in many instances been so powerful as to counteract the whole tendency of nature and turn the capacities of the individual into an entirely different channel. In the same way you and I by holding before a child, cursed from birth with a tendency to lie, the truth, the inability to live otherwise than truly, by intensifying the truth so as to leave out the possibility of lying, can lead the child to develop a love for the truth which will overcome all tendencies to be untruthful. In the same way we can counteract laziness, forgetfulness, dishonesty, and all other crimes belonging to childhood. What the possibilities of securing through suggestions if rightly given, might be, it is impossible to say. But I am sure of the great value of it to our profession and

believe that the laws of suggestion, when more perfectly known, will give us the means of stifling heredity and of creating in the mind tendencies which will aid in bringing forth permanent superiority to the race itself. I would urge all present to make a study of these laws, to put into practice the results of their study in order that they may contribute their mite toward attaining that superiority.

The school room here in India must in a measure counteract social environments, suggestion will be a living power here. Our profession has to do with all that pertains to the highest development of man, so all those little rules which contribute towards aesthetic development belong to our work. It is our duty to correct uncouth manners, rude speech, bad taste, a want of respect for those deserving such consideration. Then culture of the heart must follow or rather accompany culture of the intellect. And all important is the physical development of our pupils. Teachers should be so intimately acquainted with their children that they know the physical wants of each child and should care for each pupil to the utmost of her ability as she would for her own child or for herself.

The profession to which we belong is not a money making profession. In almost any other avocation more money can be made. Neither does this profession command the world's respect. Indeed a few years ago there prevailed largely everywhere the idea that if an individual was unfit for any other profession, he or she should become a teacher. And I am sorry to say that idea still lives to a certain extent. But this deplorable state of affairs is passing away, and it rests with the teachers of to-day to impress upon the world of to-day the dignity and worth of the profession. Some of the greatest and best men the world has ever known have been teachers, Socrates, Aristotle, Plato, John Milton, Pestalozzi, Arnold, and of Jesus it is written, "he opened his mouth and taught them." We cannot take too much pride in the honor we have in being teachers. Nothing disgusts me more than an indication of shame which I have sometimes seen manifested by teachers because they were teachers. It has not been long since I returned from a short visit to America. While there I met many friends representing different professions. I was much impressed by the pride people in the medical profession took in their positions. They seemed to guard it so carefully and were so considerate of all who belonged to it. I could easily see there was a bond of union which united every individual in the profession. That is just my idea of how we teachers should be united and of how we ought to guard our profession. From the lowest primary teacher to the highest in our profession there should be a willingness to impart and receive good and a desire to give to the world the best that the science of education can produce. Once I asked a friend of mine who is a physician, why she objected to patent medicines. The reply was, physicians hold that everything that is good in medicine belongs to the profession and not to any one individual. Those who make patent medicine keep to themselves the processes they use and thus exclude a large part of the world from the benefit of their discoveries. I like that spirit, it is broad and generous. It is the spirit that should characterise our profession. Whatever you or I find to be productive of good in the school room belongs to every member of our profession, and it is our duty to impart this knowledge to others. This brings me to the last thought which I wish to bring before you. Teachers' Associations are the best places for diffusing professional truths. Our allegiance to the Association to which we belong should be true and characterised by a professional pride. Whatever is asked of us should be done cheerfully. It is our duty to

help to make the meetings practical by taking part in the discussions. In order to do this we must keep our minds fresh through professional literature. Of one noble teacher it was said: "He meditated and prepared in secret plans which were to bless mankind." Can this be said of us? Right well I know that we as teachers are not all our profession demands we should be, but the heroic work of helping the world forward does not wait to be done by perfect men and women, and so long as we live aspiring toward the ideal we are doing what we can to discharge the debt we owe our profession.

HISTORY OF EDUCATION IN THE MADRAS PRESIDENCY.

By S. SATTIANADHAN, M.A., LL.B., Cantab, Assistant to the Director of Public Instruction, Acting Professor of Philosophy, Presidency College.

I. EDUCATION IN MADRAS PRIOR TO 1854.

(Continued from our last.)

The proposals of the Committee of Native Education did not receive any serious attention from Government and there was almost a complete suspension of educational measures until December 1839, when Lord Elphinstone succeeded as Governor. Just about this time the Government of India, presided over by Lord Auckland, had under consideration a scheme for the elementary instruction of the masses. The decision of Lord Auckland is worthy of note as it was in accordance with the downward filtration theory, which governed for a long time the policy of all the Governments. Lord Auckland thought that the period had not arrived when the Government could join in attempts at instruction of the masses with reasonable hope of practical good. He considered that a scheme of general instruction could only be perfect as it comprehended a regular progressive provision for higher tuition among the upper and middle classes. "There cannot," he wrote, "be a doubt of the justice of the opinion expressed by the Court of Directors that by raising the standard of instruction among these classes, we could eventually produce a much greater and more beneficial change in the ideas and feelings of the community, than we can hope to produce by acting directly on the more numerous class. It is not to be implied from this, that in my view elementary education for the mass of the people is a thing necessarily to be neglected or postponed for an indefinite period, but it will have been seen that the hope of acting immediately and powerfully on the mass of the poor peasantry in India is certainly far from being strong with me; and the practical question, therefore, to which I would endeavour before all others to give my attention is the mode in which we may hope to communicate a higher education with the greatest prospect of success." Referring to the Madras Presidency Lord Auckland said—"The Madras Presidency is remarkable in India as being that in which a knowledge of the mere English language is most diffused, among all who are attached in public or private capacities to European Officers; but comparatively little appears in any reports before me to have been done in order to make such a knowledge conducive to

moral and intellectual advancement." Lord Elphinstone himself was a great advocate of higher education on western lines. He entirely set aside the recommendations of the Committee for Native Education as not being in accordance with the views of the Supreme Government and elaborated a scheme of his own which has had a considerable influence on educational progress in this Presidency. The most important part of his scheme was his plan for the establishment of a central Collegiate Institution or University, which was to be under a President and fourteen governors of whom seven were to be natives; one of the main features of the plan being that "it should principally depend upon the co-operation of the superior classes of the Native community and should be maintained but in a partial degree from the Government funds." The 'university' was to be divided into two departments, on the plan followed in the Scotch Universities,—a High School for the cultivation of English literature and the vernacular languages and the elementary departments of philosophy and science, and a College for the higher branches of literature, philosophy and science. Lord Elphinstone's scheme involved the dissolution of the Native Education Committee and the abolition of the Central School at the College. The scheme was proposed in 1839 and in the course of the following year all the preliminary measures for the establishment of the High School department of the university were carried out. For the promotion of education in the interior Lord Elphinstone proposed the formation at some of the principal towns of superior schools, which might be eventually raised into colleges, each college becoming in time the centre of a circle of Zillah schools. The Provincial and Zillah schools were to be connected with the Madras University by the establishment of fellowships in the latter institution, to be competed for by the most advanced students of the Provincial schools. In these schools the English language was to be the medium of instruction and an acquaintance with it an indispensable qualification for admission, subject to such relaxation at the outset as might be requisite. He accordingly recommended the establishment of four schools in the first instance at Trichinopoly, Masulipatam, Bellary and Calicut for the benefit of the Tamil, Telugu, Canarese and Malayalam Districts respectively.

The scheme for the formation of a University Board was fully approved by Government and in January 1840, the first Board was constituted with Mr. George Norton, the Advocate-General, a gentleman who had taken considerable interest in Native Education, as the first President. At the very outset the Board were asked to elaborate proposals for a central Collegiate Institution or University; they were also requested to frame a scheme of education for the whole Presidency. The Court of Directors regarded Lord Elphinstone's proposals regarding the Provincial schools as wanting in definiteness and they moreover did not approve of the Vernacular being neglected in these schools. "We entertain no doubt," remarked the Court of Directors, "of the desirableness of giving superior instruction in one or more of the native languages in use in the Madras Presidency concurrently with English, and we therefore direct

that such instruction be adequately provided for in any plan for the establishment of the proposed seminaries." With reference to the scheme for the establishment of Provincial schools which was referred to the Board, the President drew up a plan for the establishment of a school at each of the stations named by his Lordship to be placed under the supervision of a Collegiate Board, consisting of the principal European and Native gentlemen at the station. Each Collegiate Board was to ascertain in the first instance what number of scholars were ready to enter the proposed school, and that on the number of twenty being obtained, a Collegiate High School should be formed, the Provincial Board applying to the University Board for masters and tutors. Mr. Norton dwelt fully on the difficulty of supervising efficiently these schools and urged the appointment of paid inspectors and the organization of a separate department of Government under a distinct Secretary for directing the entire system of Government education. In July 1841 Government issued orders for the establishment of the four schools proposed. The University Board in issuing the circulars to the local Boards laid great stress on the principle of demanding fees and opposed strongly eleemosynary education. At the request of three of the Boards the fee of Rs. 2 per month that was proposed was reduced. It was also pointed out to one of the Boards that the projected schools should not be made available to all the classes as it was the principle of the Court of Directors, that the education of the higher classes should be first considered. In regard to the difficulties apprehended on the subject of caste, it was thought desirable not to be prematurely vigorous in enforcing even right principles of action; but that at the same time it should be explained to the natives of the district that every care was already taken at the central institution at Madras "to protect all classes from any possibility of real violation," and that it was not only unreasonable, but was impossible, to keep any school in which the pupils were not to receive instruction in common. There was some difficulty at first about meeting the cost of these schools from the educational grant of Rs. 50,000 as other schemes were also under contemplation, one of them being the formation in the University of Collegiate classes in Medicine and Civil Engineering, but on the Board pointing out the importance of the Provincial schools other measures were suspended in preference to the opening of these schools. There remained, of course, the difficulty of securing competent men as Head Masters. A long and tedious correspondence took place on the subject between the Court of Directors and the Government and between the Government and the University Board as to the amount of salary to be paid, and whether the teachers should be imported from England, and it was finally decided by the Court that "for the present the full development of the University then established should be the exclusive object of attention." The functions of the University Board, as regards the establishment of Provincial schools, having been suspended, were shortly afterwards transferred by the Government to a new Educational Board, which was constituted under date the 28th June 1845, under the designation of the Council of Education.

REVIEW OF EDUCATIONAL JOURNALS.

The *London Journal of Education* for November is a bulky number. It devotes some space to the vexed question whether Greek ought to be compulsory at the older universities. Dr. Butler, the Master of Trinity College, Cambridge, issued a fly-sheet stating a *prima facie* case for an inquiry by the Senate on the subject. This is how he states the case:—(1) Nearly half the boys at school which send pupils to the University have dropped the study of Greek. (2) These boys, notwithstanding, are receiving a truly liberal education. (3) Many of these are deterred from entering the University by the necessity of learning Greek as well as Latin. (4) Many genuine students drift away from the University altogether, though really better educated men than many of those who learn just enough of the two languages to pass. (5) This tendency is rapidly and surely advancing, and the separation between the University and the best 'Modern' teaching is becoming more and more pronounced." But the proposal to hold an inquiry has met with determined opposition, and the proposed 'grace' has been rejected by the Cambridge Senate by 525 votes to 185. So far then as Greek is concerned, Cambridge will make no change for many a year to come. Mr. Welldon has an able article in the *Contemporary* for October arguing in favour of the abolition of Greek. In commenting adversely on a remarkable article which lately appeared in the *Contemporary* for September on the Nationalisation of English Cathedrals, Mr. Gladstone evidenced the intellectual status of the clerical profession by pointing out the fact that the most conspicuous public schools are ruled by clerical headmasters. This has caused lay schoolmasters to wax very indignant, and, we think, not without reason. The fact that some of the headmasterships of the public schools are held by clergymen is no direct proof of the intellectual superiority of the latter. Parents believe that a reasonable amount of orthodoxy in schools can only be secured by having clerical headmasters. Hence many a layman, to improve his chances of promotion, takes 'orders' without the semblance of love or respect for the high calling of a parson. As it is, many housemasters are laymen, and in time all headmasterships will be thrown open to the best men whether lay or cleric. At present many an able man prefers to remain as an assistant, rather than by taking orders to accept a headmastership with a violated conscience. A correspondent very properly remarks that the superstition attaching to clerical headmasterships will not be finally eradicated till teaching is recognised by the State as a distinct profession.

In Scotland there has been much activity lately in educational circles. The University Commissioners' draft ordinances have been subjected to much criticism. One of the most serious drawbacks in the Scotch university system is the absence of an entrance examination. The universities are crowded with immature students, and often have to answer the purpose of high schools. This is one of the most radical difference between the Scotch universities and the older English universities. What the Commissioners now propose is to establish a thoroughly good entrance examination in Scotch universities. On the nature and the subjects of examination there has been much discussion. All, however, are pretty well agreed that Greek should be optional. Aberdeen, indeed, goes so far as to make both Greek and Latin optional. The immaturity of many of our matriculates in India is a great blot in our system. There should either be an age limitation, or the standard of the Matriculation Examination should be raised still higher than it is to be raised. Many of our matriculates are much too immature to profit, in the true sense of the word, by a university course.

The *Supplement* to the "London Journal of Education" contains an account of the Annual Conference of the Teachers' Guild of Great Britain and Ireland. The papers on *Technical Training* by Mr. Schwann, M.P., the *Use of Pictures in Education*, and the *Co-ordination of Educational Effort* are all worth careful study. We wish we had space to show how the Manchester Art Museum Committee is doing noble work by loaning out collections of valuable pictures to the Manchester Elementary schools. The London School Board seems inclined to take up the idea. We badly want something of the kind in our schools in India.

The *Boston Journal of Education* regrets that "The World's Fair at Chicago is educationally behind hand; it is no fault of President Peabody, but of those who delayed the appointment of the head of the department. No building has been provided or planned for this department, which should be one of the most interesting in the fair. There is much lost time to be made up." It also regrets that the supreme court of Wisconsin, and the attorney-general of the state of Washington should have decided that the reading of the Bible in schools is forbidden by the state constitution on the score that such reading constitutes sectarian teaching. Dr. W. T. Harris, a United States Commissioner of Education, is about to produce a series of State Histories of Education. Dr. Harris is well known educationally as an author, and will be doing his country a great service if he is successful in working out his scheme. The *Journal* does all honour to the *Post Despatch* for denouncing a policy advocated by the school authorities in St. Louis, which is nothing more or less than the appropriation of a special fund for the employment of detectives to

watch such of the 1,200 women teachers of the city as the board may designate, to detect whether or not they are virtuous, or in other words, whether they have gentlemen companions, who are presumably not proper associates for a teacher. It appears that officials have been in the habit of employing detectives at their own expense for this service, and now they wish to make it a city affair. But the entire moral sentiment of America would rebel against such a vile practice. There is an interesting article on the use of *Newspapers* in schools, in which the writer says the newspaper forms a part of his regular school work. Taking his paper, he reads an item about Chicago. Various questions are then asked about Chicago, its location, size, enterprise, &c. The next item may be from Marseilles, France, and a series of questions are asked as before. If the item is important, it is read; if not, the important point is mentioned. An item on 'Fruit Prospects in New York' leads to many questions, including California and Florida. Items from Colorado give rise to questions in sheep raising, cattle-ranching, and mining. The writer thinks that mathematical geography should not be taken up with young children.

The *New York School Journal* is full of valuable suggestions for teachers. There are articles on Books and Reading, on Practical Arithmetic, Teaching English Literature, Natural History. The decision of the Cambridge Senate, with respect to the retention of Greek, is a startling commentary on what a writer in the "School Journal" has to say on the *Scope of Education*. "In Christendom this latter part of the 19th century is a bustling, commercial age, changing the modes of life and man's view of himself and the universe, and it would be no less absurd to give to the child who is to live during the next generation in Europe or the United States such a training as was given to those of the first part of our century. The true scope of an education is a variable quantity, depending upon the degree of development of the creature to be educated, the part of the world in which he is to live, and the particular conditions of that part during the period which his life in it is to cover."

NEWS AND NOTES.

LOCAL AND INDIAN.

A School of Music for Ootacamund is to be started.

A Philosophical Association has been formed in connection with the Presidency College.

Dr. Duncan, the Acting Director, proceeded on the 26th ultimo on a tour of inspection through Bellary.

We understand that Mr. Grigg will return to his duties as Director of Public Instruction at the beginning of next year.

Mrs. Grigg has kindly consented to be President of the Association of Women Teachers, and Mrs. Grose, Vice-President.

We understand that Mrs. McMullin has undertaken the duties of Honorary Secretary to the Royapettah Free Reading Room.

Mr. Ramakrishna Pillai, the author of *Village Life in India*, has in hand an Indian tale which will shortly be published in England.

The Lower Secondary Examination for Madras will be held at the Senate House on the 1st, and for Chingleput at Saidapet on the 9th, and at Chingleput on the 29th of this month.

Dr. Duncan, the Acting Director of Public Instruction, estimated the total charges of next year's Budget at seventeen-and-a-half lakhs, but Government has cut them down to sixteen-and-a-half lakhs.

Miss F. G. Wells, who not long ago took the L. M. and S. degree in Madras, has just arrived in Madras from England, after having qualified at Edinburgh. This young lady is the second daughter of Dr. S. Wells.

There is a Free Library at Baroda, consisting of some 10,000 volumes. It is a free gift to Baroda made by Shrimant Sumpat Rao Gaikwar, a brother of H. H. the Maharaja. The total value of the books is estimated at about one lakh of rupees.

Mr. Michie Smith has accepted the Government Astronomership, Madras, for one year. During this time he will relinquish his duties as a Professor in the Christian College, and devote his whole attention to the Observatory in Nungumbankum.

In order to encourage the study of Telugu, Government has ordered that an increased charge allowance of Rs. 2 per mensem be passed to any Hospital Assistant, not by birth or education a Telugu, while in charge of a dispensary in a Telugu district, who succeeds in qualifying himself colloquially in that language.

Mr. B. Bhabha, M.A., the head of the Education Department, Mysore, has been on a visit to Madras, and, among other institutions, visited the Teachers' College, Saidapet. On his return to Bangalore he presided over an Educational Conference in which the subject of school fees and the use of the Vernacular have been discussed.

According to a recent Government notification no person shall be deemed qualified for the offices of Karnam, Assistant Karnam, Village Munsiff or Monigar from and after the 1st January, 1894, who has not passed the Primary School Examination, or some equivalent or higher examination recognised by Government as a service test.

We are sorry to gather from the proceedings of a recent meeting of the Maine Historical Society that the latter is in a state of stagnation. The reader of the paper said, "that the Maine Historical Society, after a period of 18 months, had ceased to do any active work at all to the eternal infamy of the educated public of this Presidency."

Want of space compels us to reluctantly omit accounts of the sports which have recently taken place at several institutions, especially those at Kumbhakonam College, and Pachaiyappa's High School, Chidambaram. We shall endeavour, in future, to devote a column occasionally to the all-important subject of Athletics in this country.

Mrs. Clara B. Buxton is trying to set on foot a society for providing for the emigration of European orphan and destitute children from India to the Australian Colonies—there to be educated and trained to various trades and services, and finally started in life. Interest has been roused in Australia, and offers of valuable assistance and co-operation there have been received.

The Lieutenant-Governor of Bengal has passed an Education Resolution, from which it appears that "conduct registers have been introduced, boarding-houses are becoming more numerous and popular, books of questionable morality are being carefully excluded from the course of study, and breaches of discipline that come to notice are promptly and effectively punished."

During the second quarter of this year there were 159 books and pamphlets published in English and in the Vernacular in the Madras Presidency. They range under various heads, Language, History, Law, Politics, &c., but Religion predominates most. As usual, they are in a

great measure reprints of old works, or publications designed for "educational purposes." There are only one or two original productions.

A Dramatic Society, in connection with the Teachers' College, has been started, with the Principal and Vice-Principal as its Patron and President, respectively. The inaugural meeting took place Nov. 24th with the President in the chair. The programme consisted of a varied selection from Shakspeare. The delivery of each piece was followed by a short criticism on the part of the members and the President. Mr. Abraham is the Hon. Secretary.

We are glad to hear that Mr. A. A. Hall, Principal of the Teachers' College, will continue to act for this year as Hon. Secretary to the Field Games Association. Mr. Middlemast will act for Mr. Pittendrigh. We trust there will be many entries for the ensuing Tournament, and that many native gentlemen will come forward and support the Association with their patronage and money. We believe the Tournament will take place during the third week in January.

The Committee appointed by the Senate to consider the needs of the Calcutta University are of opinion that it is necessary for the University to appoint a Registrar who shall devote his whole time to the work. In order to secure the services of a man of experience, they recommend that the pay should be that of an officer of the second grade in the Bengal Education Department, i. e., Rs. 1,000 rising to Rs. 1,250 a month. In order to meet the extra expenditure, they recommend that the fees for admission to the examinations be raised.

The Rev. A. Westcott, M.A., gave a very successful Magic Lantern Exhibition to the pupils and the students both of the Teachers' College and the Agricultural College, Saidapet, Nov. 18th. The slides consisted of a number of views of London, some amusing stories and comic slides. The majority of the audience had never before seen a Magic Lantern. The delight of the younger boys was unbounded, and reached a climax when the huge head of a tiger appeared on the sheet and rolled its eyes and opened its jaws in a very impressive manner.

Mr. S. Vaidyanadaiyar, 1st Assistant in Chengelroya Naicker's Commercial School, Madras, has been granted a certificate of proficiency in Phonography by Mr. Isaac Pitman, the inventor. This master is already qualified in Correspondence, Book-keeping, Mensuration and

Hygiene. The staff consists, besides, of a science graduate, a philosophy graduate, a trained F.A. qualified in Correspondence, Book-keeping, Mensuration, Surveying, Plan-drawing and Physiography, a phonographic reporter, and a trained matriculate qualified in Correspondence.

In commenting on Professor Macmillan's address on "Heredity and the Regeneration of India," Mr. Frederick Boyle, in the *National Observer* says:—Girls so bright and lively as those we see in India of the lower class will assuredly find means to develop their "physique" in spite of purdahs. As for their minds that is another thing. Remember, I dispute not for one instant that the seclusion of women is a mischievous and abominable practice. But personally I have never seen cause to believe that most of the children thus raised are less naturally intelligent than others of their race.

The Rev. Mr. Vickers, at a recent meeting in Madras, said:—"A boy who was educated at an English boarding school was far superior to any with equal talents and goodness who had been educated in a day school. At a boarding school everything good in a boy was brought out." The speaker might have added "and everything bad too." We have known some boys who have been ruined by boarding schools. The speaker's reference to the unmitigated cruelty practised in English schools, and some other of his remarks, show that his experience of the English school system is limited.

The anniversary of the Christian College Dramatic Association took place the other day at the Evangelistic Hall under the Presidentship of Mr. Pittendrigh, M.A., when "Othello" was played by the members of the Society. The Report for the last year was clothed in the same strain as the Reports of all such Societies, complaining bitterly of the laxity of enthusiasm on the part of the members, of the fall in the number on the rolls and last of want of funds. The actors did each his part tolerably well, and the gentlemen who represented Iago, Othello and Desdemona, deserve special mention, judging them from the standpoint of their being amateurs.

The Madras School of Music has now twelve teachers registered. Numerous classes have been formed, pupils' fees already amounting to Rs. 140 per month. The school has arrived at its present stage without any help from Government, though, of course salary grants will be sought for in course of time and the provisions in the Grant-in-Aid Code will be taken advantage of. The Council have

adopted a scale of fees as follows:—Preliminary pupils Rs. 3-8 per mensem; pupils preparing for the three Government Examinations Rs. 5, 7½ and 10, respectively; other private pupils Rs. 10. The Inaugural Concert at the Banqueting Hall was a great success.

* * *

The Doveton College, Madras.—At the early part of the year, the office of the Secretary to the Committee of this institution changed hands, and in place of Mr. D. Parsons, the paid Secretary, Mr. J. Chatterton was appointed Honorary Secretary with a small allowance to pay for a clerk. This gentleman, seeing the impecunious condition of the institution, and its funds exhibiting a deficit of Rs. 8,000, appealed for aid to those interested in the welfare of the schools. The result has been most gratifying. The saving effected in the Secretary's salary, together with the contributions sent in response to the appeal, has enabled the debt to be reduced by Rs. 2,000.—*Times*.

* * *

The Rev. J. T. Lawrence, M.A., in presiding at the Annual Meeting of the Association of Women Teachers, November 7th, made a very able speech, considering that he could lay no claim to speak as a specialist in Education. Among other things, he spoke of the remarkable dearth of attainments in Madras, and urged on the teachers present the importance of acquiring a knowledge of music, both vocal and instrumental. He knew cases where the possession of such knowledge made a substantial addition to a teacher's salary. We urge all teachers, especially Native Christian teachers, to take the opportunity which the School of Music offers them of becoming certificated teachers of music.

* * *

We very much regret to record the death of Mr. F. B. Hanna, Agent and Manager of the Madras Railway Company. He was a Fellow of the Madras University, and closely identified himself with educational work. We had the pleasure of hearing him make an eloquent speech lately at the Anniversary Meeting of the Perambur Railway Schools, in which school he took a lively interest. It was at the same meeting that the late Miss Pratt was an interested spectator. Mr. Hanna was also a great patron of the art of Photography and of the Magic Lantern, and firmly believed in the power of the latter as an educator. He was especially anxious that the Victoria Technical Institute should procure an efficient lantern from England for teaching purposes.

* * *

During the recent tour of Lord Wenlock through Ganjam, the Uriyas addressed him on the subject of their educational disabilities. They paid a debt of gratitude to Mr. Grigg, C.I.E., who, as Acting Inspector

320

of Schools in 1867, brought the backwardness of the people to the notice of the Government. Lord Wenlock in his reply said:—I have been asked that the operation of the rule whereby only graduates will be admitted to certain posts in the public service may be suspended in the favour of Uriyas. I think there is something to be said in support of this request, but if the rule is relaxed there must be a limit of time to such relaxation, and in view of the approaching improvement of communications I do not think that concessions to Uriyas can be of other than a temporary character. I hope their young men will shortly go by rail to Madras, and return fully qualified in great numbers to take their post in the Government service and in other employments.

* * *

The annual report for last year of the Madras Medical College has been unfavourably reviewed by his Excellency the Governor in Council, and the Director of Public Instruction. This comes with no surprise, for the results seen annually in the University Examinations reveal the fact of the want of steadiness on the part of the students in their medical studies, and that something radically wrong exists somewhere. As a remedy for the evil the Director of Public Instruction has, in reviewing the report, brought to the attention of the Principal and Professors of the College the adherence to a bye-law in rule 278 of the Madras University which directs that students who do not conduct themselves at lectures to the satisfaction of their respective Professors, could be deprived of their certificates. This rule the Director thinks has been disregarded, and should be now enforced. It will doubtless bring about a more diligent application to study amongst the students, but it has been received with no satisfaction by them.—*Times*.

* * *

In presiding over the first anniversary of the Pursewalkum Literary Society, Mr. G. Subramani Iyer, B.A., Editor of the *Hindu*, said "their ancestors really did not care for national organisation; they did not strengthen their internal and social organisations so as to provide against the contingencies of foreign aggression. He greatly deplored this, and attributed the loss of their country and their power to this evil alone. They had to strive for, not an individual, but a national collective existence, a standard of existence which the Western people had adopted. They needed to strengthen themselves as a nation, for though they might be wealthy, contented and happy under present circumstances, they needed to rise to that level where other nations would look up to and respect them. He did not think, however, that there could be much room in the hesitation in the choice. There had been a national deterioration, physically and morally; and the consequence would be, the

speaker said, that in course of time they would degenerate into a nation of pigmies. Social questions were far more important than political questions."

The Viceroy, while on his recent tour, referred to Canada in the following terms:—Amongst the many loyal inscriptions and signs of good will which decorated the approaches to the Residency on the day of my arrival at Indore, my eye was not slow to detect a legend in which I was informed that "Canada has not forgotten you." I was greatly touched to meet, in the midst of this Indian State, at a distance of many thousands of miles from the Dominion, with a welcome which carried me back to the five happy years which I spent as Representative of the Crown in the Great Dominion of Canada. I rejoice to find your little Canadian Colony carrying on its good work successfully in India: I do not believe that the cause of education could be entrusted to better hands. There is no country in which popular education, and the best means of providing it, are better understood than in Canada. I often admired the completeness of the educational system which prevailed there; it is a system which provides what should be the great object of all systems of education, a graduated series of institutions, carrying the student without a break of continuity from the elementary courses of the public school to the higher education of the College and University.

LOWER SECONDARY EXAMINATION.—On the 1st December and the following days a new examination, styled the Lower Secondary Examination, will be conducted for the first time in Madras, and on other days at other centres of the Presidency. This examination was instituted in the place of the late Middle School Examination and received the sanction of Government in the beginning of the year. The object of Government in instituting this examination is to provide a final test for Lower Secondary education. The examination will be in compulsory subjects, i.e., English and Arithmetic, as well as in optional subjects, i.e., History of India, Great Britain and Ireland, Geography, Mathematics, Elementary Science, Domestic Economy and Needlework and the second language. As the examination will be conducted mainly *pivá voce*, it is not possible to say within how many days it will be finished. In the Madras circle 256 male candidates and 76 female candidates have applied for it; but a good number of these will be disqualified as belonging to unrecognised schools, no pupils of unrecognised schools being admitted even as private candidates. Mr. A. E. Duchesne, the Head Master of the Commercial School, is the Chairman of the Madras and Chingleput Circles.

Speaking at the distribution of prizes at the Karachi Grammar School, Lord Harris said:—"I am delighted to find in Karachi, as I have found in the Presidency generally, this careful endeavour that the children of those who are administrators of the country, the children of European parents, should not be neglected, after so much attention is being paid to the education of the children of the native races of the country. It may have been possible, that in the desire to deal fairly with those whom we rule, we might have overlooked the fair claims and needs of those who come to this country to seek a profession, and who sometimes leave generations to remain in the country; and I am glad to think that whilst Government has recognised that it is a fair thing for it to do to assist a school such as this, it at the same time treats them impartially, and not more favourably than it does those schools which are devoted to the education of the children of the native races of the country. It seems to me that if there is one thing more necessary than another it is that the children of European schools should have such an education as will enable them not only to understand what is the advantage of this great empire, of which they are citizens, but also that they should be trained by education, by moral as well as mental education, as well as by the encouragement of their parents, to understand what grave duties have been laid upon their shoulders by the fact of the British Government being the ruling power and that the difficulties of our relations with the residents in the country would be undoubtedly far more difficult if it was not for the education in this country. Our European children should have such an education as will enable them to understand that it is their duty to enlist the confidence of the native races of the country, as well as to say that England is still capable of ruling the country.

LITERARY AND GENERAL.

Numbers of schools in France and Germany have been closed owing to a widespread and virulent outbreak of influenza.

The elections for members of the London School Board have resulted in a decisive victory for the moderates and the advocates of economy.

Miss E. A. Manning has joined the English Theistic Church of the Rev. Mr. Charles Voysey, B.A. She is in entire sympathy with the Brahmoic (Theistic) movement in India.

Archbishop Magee used to divide speakers into three classes,—
 "The speaker you *cannot* listen to; the speaker you *can* listen to; and
 the speaker you *cannot* help listening to."

Harrow School in England will shortly bring out a register of Harrovians, in which the names and biographies of all boys who have entered the school since the first year of the century will be given.

An educational paper, the *Educational Review*, has just been started in England. It will be conducted by well-known educationists at Oxford and Cambridge, and will deal with Education in all its grades.

"Bless me, Sir," said a witness to the Lord Mayor, in reference to certain strong language said to have been used at Billingsgate, "they don't know at Billingsgate when they are using it. It's like the 'A B C' of the School Board to them."

With regard to the subjects of examination, the boldest suggestion comes from Aberdeen University Council, which would make Latin and Greek wholly optional subjects, a student being allowed to take a modern language instead of Latin or Greek.

The Minister of Public Instruction in France has sent a circular announcing that foreigners are not to be allowed to teach in any schools above the primary grades unless they secure permission from the Government to take up their residence in France.

One day, in 1830, a working jeweller, Joseph Gillott, now the famous steel-pen maker, accidentally split one of his fine steel tools, and being suddenly required to sign a receipt, not finding his quill pen at hand, used the split tool as a ready substitute. The happy accident led to the idea of making pens of steel.

One of the most unfortunate and unreasonable complications that has yet arisen in America educationally, is that of the supreme court decision of Wisconsin and of the attorney general of the state of Washington, that the reading of the Bible in schools is forbidden by the state constitution.—*Boston Journal of Education*.

Mr. Welldon, the headmaster of Harrow, has no preference for clerical masters; in fact, he holds that laymen are, in some ways, better teachers of religion than clergymen, as the former cannot labour under

the suspicion of professional bias, and he would make as little distinction as possible between the clerical and lay members of the staff.

Mr. Balfour's recent utterances at Manchester are by far the most important contribution that has for a long time past been made to educational science. It is now palpable that the Free Education Act, if helpful to the poorer voluntary schools in many important districts (of which Manchester serves as an example), cripples their resources to an extent which calls for increased voluntary help.

The most interesting information that comes from Oxford this month is that out of 70 students who have joined the non-collegiate ranks, 8 come from the United States, 2 from Melbourne; 2 from India, 1 from Russia, 2 from the Powky Blind College, and 10 from the Provincial Universities of Great Britain. The non-collegiate system is worth encouraging if only for the unofficial international relations which it fosters.

The Socialists of Germany are evidently determined to lose nothing by neglecting to ask for it. In a beautifully comprehensive programme they demand that almost all the blessings of this life shall be supplied to them at the cost of the community at large. Not content with clamouring for free education and free dinners for their children, they also aspire to free legal advice and free medical attendance for themselves. It is a large order—larger even than appears upon the surface.—*Daily Graphic*.

In view of the fact that a Laboratory is to be erected in connection with the Presidency College, the promoters should read an interesting and instructive article on the new Chemical Laboratory at Cornell University U. S. A. in the *Scientific American*. It consists of Qualitative, Quantitative, Introductory, and Organic and Applied Chemistry Laboratories. It has also a Balance Room, a Museum and a large Lecture Hall. Altogether it is a building which does credit to the University.

A memorial to the late Father Damien has just been completed in England, and will be shipped at once to Molokai. It is in the form of a polished red granite Runic cross, and cost £204. The pedestal and shaft are richly cut, the former bearing a sculptured portrait in white marble. The inscription is in English and Hawaiian, and reads, "Joseph Damien De Veuster. Born Jan. 3, 1840. Died April 15, 1889."

"Greater love hath no man than this, that he lay down his life for his friends." This monument is raised to his memory by the people of England."

THE PHYSICAL TRAINING OF WOMEN.—There are many things which modern civilisation can learn from the ancient Greeks, particularly the care they bestowed upon the physical culture of women. The statuesque figures of the Italian women to-day are attributed to the severe physical training which their progenitors, the men who made and loved Rome in her palmiest days, were constantly undergoing. There is, happily, growing a feeling in favour of thorough physical training for girls. There are a number of out-door games in which girls can indulge, and active indoor amusements ought also to be encouraged.—*Echo*.

There is, in America at least, a courtesy shown to women, an appreciation of her mental capacity and the charm of her companionship, that should be recognized gratefully by our sex. College doors have been opened to her. Colleges have been built for her, largely by men. The press associations of the country give her equal privileges. She preaches, she doctors, she writes, she carries forward great philanthropic movements, and she wins hearts just the same as ever. Perhaps men feared at first that she would lose a little of her womanliness and gentleness, but she has not lost these charms.—*Boston Journal of Education*.

The division lists of the Oxford Local Examinations, for the year 1891, are just issued at Oxford, England. The examinations were held in July at 65 centers, of these 30 were special local centers at which school examinations were combined with the local examinations, and seven were new centers. The total number of candidates examined was 3,260. Of these, 1,649 juniors and 685 seniors passed, making a total of 2,334. Last year the total number of candidates entered was 3,223. This year 361 boys and 625 girls have been examined for a senior certificate, and 259 boys and 426 girls have passed. Last year the numbers were 354 and 609 and 289 and 523 respectively.

PRESIDENT HARRISON says of the American teacher:—One of the most influential characters in the history of the United States is the New England school teacher. If we could follow the track of these intelligent men and women who have gone out from the New England states into the West and South; if we could trace those strong yet slender and hard-to-be-discovered threads of influence which they have started in the communities to which they went; if we could know how they

have impressed on the minds of the pupils brought under their care the great lessons of self-government and love for free institutions and social order, we should have a higher thought than we have yet had of the power and dignity of these pioneers of education.

The Council of the City and Guilds of London Technical Institute have lately developed a scheme for examining and granting certificates to elementary school teachers as instructors in manual exercises in wood-work. The examination will be open to all teachers who have received training in classes certified by the Institute, and will be directed to testing their knowledge of the theory of teaching as well as their practical skill. A large number of applications for particulars have already been received from teachers in various parts of the country, and the School Management Committee of the London School Board are now considering how best they can co-operate with the Institute. Manual teaching is now becoming so common that the examination supplies a distinct want.

The Education Department in Great Britain has recently issued a circular in which it endeavours to show parents how the money given to them under the Free Education Act might be saved for their children. The Department strongly recommends that the children be given money, equivalent to what was formerly paid for school fees, to put in a Savings Bank. "Each child who brings a deposit will have the amount entered in a book of his own, as well as in the school ledger; when the account reaches a certain sum, say 10s., it will then be drawn out from the School Savings Bank, and invested in the child's name in the Post Office Savings Bank." We have heard of a Board School in London the scholars of which bank about £50 a month. In connection with this, and with the suggestion to establish similar Savings Bank in Calcutta, the following paragraph will be interesting reading.—(Ed. M. J. E.)

At the general meeting of the Elementary Teachers in Brussels, the school savings-bank has been condemned, by a vote of 117 yeas and 86 noes, on the following grounds:—(1) What is saved is never sufficient to provide aid in case of sickness or accidents. Insurance companies and workmen's unions would be much better. (2) Saving makes young children selfish; the teaching at school ought to develop charity, not grasping. (2) As it is, it is seldom the children that save—it is the parents, who give their savings to the children to take them to the schoolmaster, who thus becomes the banker for the parents. (4) Several parents save from a desire to please the schoolmaster. (5) The practical good of the school savings-bank, after a trial of twenty-five years, may be said to be nil.

CORRESPONDENCE.

SIR ALFRED CROFT'S SCHEME FOR THE FINAL EXAMINATION OF
SECONDARY SCHOOLS.*To the Editor of the Journal of Education.*

Sir,—I am one of those who think that the present system of teaching in our High Schools, and the system of public examinations by which that teaching is influenced, are not doing good service to the cause of sound education. They are ambitious to cover a large ground of work without aiming at depth and thoroughness, and they degrade education in to cram for examinations. It is interesting to know, therefore, what Sir Alfred Croft up in Northern India thinks of our new Secondary Examination in Madras; but his opinions published in the correspondence relating to the establishment of a final examination for Secondary Schools alternative to the Entrance Examination of the Calcutta University—a subject which the Senate of the Madras University was called on to consider last month,—do not appear to affect the Upper Secondary Examination Scheme in any way just at present. He evidently prefers to see the Madras University performing the double duty of examining candidates who are to go in for a University career (which of course is the proper function of a University) and likewise discharging the function of a Board of Examiners for the final examination of Secondary (as opposed to High) Schools—a function which forms no part of the work of any University.

The Senate of the Calcutta University will, perhaps, adopt Sir Alfred Croft's recommendations, backed up as they are by the present Lieutenant-Governor of Bengal, and suitable apparently to the present needs of that particular University; and if they be adopted, the rest of India should watch its working before slavishly copying the scheme.

As to Madras, we have at present Mr. Grigg's Scheme for the final examination of Secondary Schools settled and in working order as a separate examination. It will last five years at least, and it remains to be seen whether Mr. Grigg's or Sir Alfred's Scheme will triumph, for by that time each of them will have had a fair trial. If ours is a failure (which as regards the quality of the candidates passed is concerned will be unfortunate), then the University should consider the question of enlarging its scope to meet the needs of a Final Upper Secondary Examination. On the other hand if our system works fairly well, we shall probably see Bengal folks fall in with the Scheme of Madras and Bombay. For the present it is to be sincerely hoped that in the interests of sound education the Tamil land will be given some rest. The

324

Senate of the local University has simply recorded the correspondence relating to Sir Alfred Croft's Scheme.

Meanwhile it behoves the Heads of Schools and Examiners, whether appointed by the University or by the Educational Department, to take note of the harm that is being done to the cause of sound learning by unsatisfactory methods of preparing candidates for the public examinations and certificates. They should see how students *take in, assimilate, and express*, and if they persistently exhibit and maintain a clear and ever-growing connectedness in all, and through all, the facts and things which they learn. I do not mean by this that mere connectedness which logically strings together the successive parts of a subject, but such a net work of connectedness as brings together all the subjects of the student's knowledge and keeps them together as one whole, so that each one of them is enlightened, and enlivened by all the rest. Professors and Teachers should help the Native youth to use his knowledge (and his partially assimilated information) to express himself by each and all of those methods and means of expression which really lie within his power, and are most natural to him. Unfortunately the tendency of our over-abundant examinations seems to be to make the teaching work a drudgery. If teachers in our public schools look upon it as a drudgery, it will make them drudges; but if they keep alive within them a simple and yet proud consciousness of high public service, if they recognise the great harm they may do when they are clumsy and indifferent, if, in short, they work in a proper spirit, then teaching will become an intelligent and interesting work and not a drudgery at all. It will be the noblest privilege of the lover of his fellow-men, and no pains or trouble will be spared to make their work of teaching effective, and keep before them a lofty aim of public good, with little reference to Croft's Scheme or any other scheme of

PUBLIC EXAMINATION.

STUDENT'S COLUMN.

[The following questions and answers have been kindly forwarded to us by a teacher for the use of those teachers who reside in places where they cannot easily get advice on the best methods of teaching.—They should prove useful also to candidates in the approaching School Management Examination.—Ed.]

METHOD QUESTIONS WITH ANSWERS.

I. What are the chief points in a teacher, who is a good disciplinarian? State briefly how each may be obtained.

The chief points in a teacher who is a good disciplinarian are, system, energy, vigilance, self-control, health and cheerfulness.

System.—Under this heading comes order. It consists in having everything in its right place, and everything at its proper time. It requires regularity in the movements and uniformity in the position of the children.

Quietness too is desirable; it may be obtained by giving the children suitable and sufficient employment. A quiet tone should be used in addressing the children. Stated periods of change and drill will be found helps, but above all the teacher should know clearly and well not only the work to be done during the day, but those portions to be taught.

Energy.—The teacher should be quietly energetic, not a moment should be lost, not a moment in school should be unemployed. The teacher should be an example of diligence.

Vigilance.—Without attracting attention, the teacher should see everything that transpires; her presence should be felt everywhere. The teacher must make daily observations of her pupils in order to treat them successfully.

Self-control, with its allied firmness and calmness, is an aid to discipline. A teacher should never act hastily, never scold. A quiet mode of speaking is of more effect than a loud and threatening one. Patience and forbearance must increase with the demands upon them.

Earnestness, cheerfulness and considerateness are other qualities essential in the successful discipline of the school.

Cheerfulness is sunshine making everything pleasant and bright, but a cloudy brow and troubled aspect diffuse gloom and depression. Above all *punctuality* should be observed.

II. What are the uses of questioning in teaching?

What are the tests of a good question?

Questioning holds an important place among the artifices of teaching. It is used to discover whether the pupil's mind is active, whether his ideas are clear, what he knows of the subject in hand, and whether he is going along with his teacher.

(a) Its lowest office is at the beginning of a lesson to find out what is known and to discover the pupil's state of mind.

(b) It is also valuable as a test during a lesson, and at its close of what has been received and understood.

(c) It is a good means of conveying knowledge and of exciting mental effort and also of recapitulating the parts of a lesson.

The tests of a good question are—

1. Questioning should be searching and directed to the most important features of a lesson. It should be confined within the limits of the lesson, and should not give by its form any clue to the answer required.

2. Each question should rise from the preceding answer and should connect each succeeding answer with the preceding.

3. The question should be well worded, simple, to the point, short, in the teacher's own words and varied in form. It should not admit of an affirmative or negative reply, should be neither too easy nor too difficult for the class under instruction, and should require a distinct intellectual effort.

4. It should be definite and not tell much, and it ought to be impossible to answer by guess.

III. Specify five of the chief qualifications a good teacher ought to possess, and show the importance of having them.

Five of the chief qualifications a good teacher ought to possess are—

1. Good health; 2. Knowledge of the subjects taught; 3. Aptitude for teaching; 4. Order and punctuality; 5. Sympathy with her pupils.

1. *Good Health.*—No school can give satisfaction where the teacher is often absent from ill-health. The progress of the pupils is slow; and parents often remove the children to other places for instruction. The teacher is unable to manage the school with the vigour necessary to secure success. It is also apt to make her irritable and desponding, while good temper and cheerfulness are indispensable in the management of children.

2. *Knowledge of the Subjects Taught.*—This is necessary to success and success must not be expected without careful and special preparation. A thorough acquaintance with the subject is the first requisite of a teacher.

3. *Aptitude for Teaching.*—The teacher must know how to impart knowledge. She should be able to express herself in a clear, lively and interesting manner and with the simplicity necessary in speaking to children. If it be necessary for her to adopt "baby language" in addressing infants, she should do so by all means, and it would be well if all teachers remembered this rule—"Suit your language to your class."

4. *Order and Punctuality.*—These enable a teacher to accomplish a greater amount of work. Punctuality should extend to the opening and closing of school and the beginning and ending of lessons.

5. *Sympathy with her pupils.*—The teacher who has this important qualification cannot but be successful. She should be careful to encourage the children, help them in their little difficulties, enjoy their little pleasures, and take a genuine interest in their home life.

(For the benefit of students we give the papers set in English Language and Literature at the recent D'Souza Scholarship Examination.)

ENGLISH LANGUAGE.

1. Explain the difference between 'synthetical' and 'analytical' languages. How do the latter compensate for their defects? How does the 'syntax' of synthetical languages differ from that of analytical ones?

2. Show from the English Language that the formative elements of language have grown out of significant words.

3. Trace historically the introduction of classical words into the English Language.

4. What letters have been dropped or inserted in the following words? and state the phonetic principles connected with such loss or

insertion : ten—five—lord—mole—tender—number—gossip—four—chaffer—wist—such—riddle.

5. What obsolete suffixes has our language preserved to denote (a) gender, (b) number, (c) case, (d) person, (e) tense, (f) mood?

6. Explain the following terms: alms—eaves—shambles—optics.

7. Give instances of a comparative suffix—*-er* and a superlative suffix—*-m* in English. What traces of these are there in the classical languages?

8. What is the history and etymology of the following forms: that—its—she—they—self—those—which—ought—one—each?

9. What is the origin of the suffix of the past tense in weak verbs.

10. Discuss the following forms: shall—will—ought—must—could—clad—sought—lain—molten—forlorn—baken—borne—shunk.

11. How does English compensate for the loss of (a) inflexions for the infinitive mood, (b) gerunds, (c) tense and mood suffixes?

12. Show that 'adverbs' have grown out of other parts of speech. What so-called parts of speech have grown out of adverbs.

JOS. ZEMIN.

ENGLISH LITERATURE.

1. Classify the writings of Bede, and infer from them his chief characteristics as an author.

2. Criticise any two of the works of Chaucer. What was his influence on the English language?

3. What circumstances tended to make the Elizabethan age pre-eminent in the literary history of the world? Mention six of its most remarkable literary characters, and give some reason for your selection in each case.

4. Explain the main points of difference between the Deductive Method of Aristotle and the Inductive Method of Bacon.

5. Trace the history of the rise and progress of the Drama in England till its development under Shakespeare.

6. Give a brief sketch of the life and career of Shakespeare. Name his historical plays.

7. Comment upon "Hudibras."

8. What are the principal features which distinguish the writings of (a) Locke, (b) Pope, (c) Dryden, (d) Swift.

9. Name any four great novelists who flourished between 1661 and 1731. Mention two of the best works of each, shewing their points of excellence.

10. Compare Butler and Paley as theological writers.

L. W. D'CREZ.

REVIEWS AND NOTICES OF BOOKS.

GAI JULI CESARIS DE BELLO CIVILI COMMENTARIORUM, I. Edited with Notes and Vocabulary for the use of Schools. BY MALCOLM MONTGOMERY, M.A. 18 mo. Price 1s. 6d.

This little volume forms one of the Elementary Classics Series published by Macmillan and Co. The Introduction comprises an Historical Sketch and an account of the Roman Army. The Text is the text of Kraner and Hofmann (10th Edition 1890). The Introduction and Text are illustrated by two maps and a plan of a Roman Camp. The Notes are brief and to the point and give such assistance as a beginner requires. The book contains a Vocabulary and Index.

A SHORT HISTORY OF THE ENGLISH PEOPLE. By JOHN RICHARD GREEN. Illustrated. Part I. Price 1s. nett. Macmillan and Co., London and New York, 1891.

This is a charming and beautiful edition of John Richard Green's 'Short History of the English People.' The merits and demerits of this work have been well discussed for some time, and in spite of the imperfections which impair the value of the book here and there, it has deservedly taken a high place in the public estimation. It is now to be published in shilling parts with illustrations. The first part is before us, and is a model of what such books should be as regards paper, type, and illustrations. We can specially recommend the book to Indian teachers, as the profuse illustrations vividly appeal to the imagination of students, and will assist in making the teaching realistic. It contains choice illustrations of early English ornamental work and illuminated manuscripts, together with many excellent maps. It is a distinct pleasure for the eye to rest on any page of this work, so great a triumph is it of the printer's and engraver's art.

ELEMENTARY TRIGONOMETRY by J. M. DYER, M.A. and the REV. R. H. WHITCOMBE, M.A., Assistant Masters at Eton College.

This book is what it professes to be *Elementary*. It does not enter upon the higher parts of the subject. It does not even explain the construction of logarithmic and trigonometrical tables, which is generally understood to belong to the elementary part of the subject. But what it professes to teach, it teaches admirably. The authors have dealt with the subject in the true spirit of the teacher. A good teacher knows that, if he is to succeed at all with ordinary pupils, he must interest

them in what he is teaching, and he will introduce what is interesting in it, at the earliest available opportunity. Perhaps the most interesting part of Trigonometry is that which treats of the measurement of Heights and Distances, and we are glad to see that the authors of this work have introduced "Easy Problems in the Measurement of Heights and Distances" at an early stage. The subject is resumed at a later stage, when the student has acquired sufficient knowledge to deal with difficult problems. But although the authors of this work have broken through the ordinary cut and dried arrangement which relegates every part of the subject to its supposed proper logical place, in which it can be dealt with exhaustively, they have not slurred over any difficulties. On the other hand they have frequently given duplicate proofs of propositions, a geometrical proof in addition to the usual analytical proof. The book is excellently printed and the figures are large and clear. We can strongly recommend the work to all our readers who are entering upon the study of Trigonometry.

A SHORT ANALYSIS OF ENGLISH HISTORY. By T. F. TOTT, M.A. History Primers. 1s. London: Macmillan and Co., 1891.

In the words of the author this Analysis 'consists of a chronological arrangement of the chief facts of English History, concisely stated, in which the leading events of each reign' are broken up into divisions, naturally suggested by the facts themselves. A first glance at the inside of the book is not enticing. It has that repellant look which is common to most analyses, and in this particular case the feeling of repulsion is intensified by the fact that the dates which crowd the pages are painfully obtrusive by being printed in extra bold type. We think the book is unnecessarily crowded with dates, some of which are not of first rate importance. The author, however, has a comprehensive grasp of English History, and his book, if properly used, should form an admirable companion to a fuller reading-book on the same subject. In fact, if used by a skilful teacher, any other book on English History might be dispensed with by the pupils. We particularly like the comprehensive way in which the author summarises the character of particular periods. For instance:—1399—1509. *Period of Constitutional Government and of suppression of heresy. Second period of the Hundred Years' War. The Wars of the Roses and the Fall of Medieval Constitutionalism!* Then under the particular headings of this period appear such as the following:—1461—1485. *Edward IV. Period of the Restoration of Legitimist Rule and strong Government interrupted by a Lancastrian Restoration.* Under these larger headings appear smaller and most pertinent headings. It is quite evident that the analysis, short and unpretentious-looking as it is, is the outcome

of much thought and wide study. We can recommend the book to all who know how to make a proper use of it.

A KISAMWAR GLOSSARY OF KANARESE WORDS compiled by N. NARSINGA RAU, B.A. Rs. 3. Basel Mission Press, Mangalore.

We are glad to be able to say that the compiler, in bringing out this neatly bound glossary of 180 pages, has really produced a valuable addition to Kanarese Literature. Such a glossary as is now before us has long been a desideratum. The many Kanarese lexicons now in use, while, no doubt, proving valuable aids to the student of Kanarese Literature, hardly contain any official terms. But the compilation under review answers this purpose admirably well. Besides a vast deal of collateral information, it contains words "inaccessible to many owing to their value or rarity now brought together, and concentrated to effect a saving of time and labour."

The work, so far as we have been able to go through cursorily, seems to be as the author puts it "a handy" work of reference of practical utility for the Kanarese parts of India. But, since the compilation deals with words, most of them peculiar to Kanara, we are inclined to think that it will be of service to the natives of the district in general—graduates, and undergraduates about to enter Government service—and to civilians in particular. Dr. Lepsins's system of transliteration is very wisely inserted. But in the key to transliteration, the sounds of some letters do not at all correspond with those of their English equivalents,

e.g. *ḡ* i as in evil

ḡ gha as in ghost.

The work seems to be one on which the author has bestowed much labour, and he deserves great encouragement. The book is, in our opinion, a little too highly priced. The general get up of the book and the neat typographical execution are creditable to the publishers.

THE BOOK OF PRAISE from THE BEST ENGLISH HYMN WRITERS. Selected and arranged by ROUNDELL PALMER (Lord Selborne). Golden Treasury Series. London: Macmillan and Co., 1891.

BACON'S ESSAYS AND COLOURS OF GOOD AND EVIL with Notes and Glossarial Index. By W. ALDIS WRIGHT, M.A. Golden Treasury Series. London: Macmillan and Co., 1891.

These two books constitute the fourth and fifth of the new edition of the Golden Treasury Series, offered at half a crown a volume. The Book of Praise containing a selection of the best English Hymn Writers by Lord Selborne is already well known and widely appreciated. In the

present edition the number of hymns of which the authors are unknown has been reduced to seven: and thirty-six hymns are added which did not appear in the 'Book of Praise,' as originally published." The editor justifies his omission of the authorised versions of the Psalms inasmuch as 'they profess to be, in the strict sense of the words, metrical renderings of Holy Scripture,' and as such their inclusion in the present volume would have been foreign to his design. Part I. consists of hymns arranged according to the subjects of the Creed. Part II. includes Hymns arranged according to the subjects of the Lord's Prayer, for Natural and Sacred seasons, and Songs of the Heart. As such the book contains many gems which combine literary merit with religious fervour—gems which recall, or should recall, some of the holiest associations of our lives.

The present issue of *Bacon's Essays* is merely a reprint of the edition of 1865, and so contains nothing novel. It is superfluous to speak of the merits of this edition of Bacon's Essays. The title page, the preface, and the text itself, with their quaint appearance, take us back in mind to Bacon's time. The Glossary will be found to be especially valuable. The Notes are not extensive, and this is well—seeing that the type is painfully small.

MECHANICS FOR BEGINNERS, Part I. Dynamics and Statics by the Rev. J. B. LOCK, M.A., Fellow and Bursar of Gonville and Caius College: Cambridge.

This treatise consists of the more elementary portions of the works on Statics and Dynamics by the same author arranged with some additions especially to meet the requirements of the Science and Art Department at South Kensington. The portion of the work treating on Dynamics precedes that on Statics, a mode of arrangement which has been adopted by various writers since the publication of the treatise on Natural Philosophy by Thomson and Tait. This arrangement has certain advantages. The only adequate conception of *force* is to be obtained from its dynamical effects, and an easy proof of the fundamental statical proposition "the parallelogram of forces" follows from dynamical considerations, whereas no one of the numerous statical solutions that has been proposed of this proposition is very satisfactory. But this arrangement has the disadvantage of introducing the student to the difficult conceptions connected with *motion*, and *force acting on bodies in motion*, before he has familiarised himself with the simpler problems of forces producing equilibrium. Perhaps the best arrangement for educational purposes would be a compromise, that is, to give just enough of Dynamics to serve to give the student a fairly adequate conception

of force and the composition of forces, then to take up Statics, and afterwards resume Dynamics. But turning from the mere arrangement of the matter, which every teacher may alter to suit his own views, to the execution of the work, we have no hesitation in saying that it is the best introductory work on mechanics we have seen, excepting the two works by the same author, of which it is to some extent a reproduction. Great pains have been taken to introduce the subject to the student very gradually, each new idea being illustrated by examples fully worked out and by a copious selection of examples for practice, which are of so various and testing a nature that, if the student succeeds in working them, he may feel assured that he has a competent knowledge of the subject. A noticeable feature in this book is the use of certain technical terms as *veo*, *celo*, *poundal*, *pulse*, *resolute*, &c. which serve to fix the ideas for which they stand. We cannot conceive any method better calculated to drive home and to fasten in the mind important conceptions than a clear terminology of this kind.

The perusal of this book has given us so much pleasure that we are reluctant to mention the blemishes we have noticed. We pass over mere printer's errors; but we think that the important definition of *Force* on page 26 (which, it may be remarked, is the only definition of *Force* in the book) requires modification. As it stands it refers only to *Force acting on bodies free to move*, and not to statical forces, which maintain equilibrium. If two equal and opposite forces act on a particle and keep it at rest, it would only bewilder a beginner to tell him that the two forces produce equal accelerations, each in its own direction, and that the two accelerations cancel one another, and hence the particle remains at rest; but he would readily understand that such forces only *tend to produce motion*. In his Elementary Statics (page 2) Mr. Lock, after giving a definition of *force* substantially the same as that he has given in the book under notice, gives (page 15) a statical definition of *Force*, and we think that he should either have given two definitions in this book, or have so modified the definition that it would be applicable in all cases. On page 72 we have the proposition, "The path of a projectile (or of any moving point which has a constant acceleration in a fixed direction) is a parabola." This requires modification. If a body is projected vertically upwards its path is a right line, and a body falling freely fully satisfies the conditions of the parenthetical remark, and its path is also a right line.

But in spite of little faults that may be discoverable in Mr. Lock's work, it is evident that he is fully competent to do justice to this difficult subject, and we hope to see his next edition still more helpful to the beginner.

ACKNOWLEDGEMENTS.

Gray's Poetical Works by Bradshaw. Aldine Edition. Bell and Sons, London, 1891.

Notes on Dequincey's Lives of Goethe and Schiller by C. C. Flanagan, M.A. V. Kalyanaram Iyer, Madras.

The Students' History of Rajpootana by Amrita Lal De, B.A., B.L. Calcutta.

Scott's Lay of the Last Minstrel. Cantos I—VI. by Messrs. Stuart and Elliot. Macmillan and Co., 1891.

PROCEEDINGS OF THE DIRECTOR OF PUBLIC INSTRUCTION.

EXTRACTS FROM REPORTS.

Annual Report of the Free Church Mission Institution and Madras Christian College for 1890-91.—Of 39 teachers no less than thirty hold no teachers' certificates. The graduate teachers of short service should be encouraged to qualify for the L.T. Degree, and the uncertificated teachers should qualify for Ordinary certificates to meet the requirements of the Educational Rules.

The strength of the College at the close of the official year was 672 against 623 on the 31st March 1890, and the average daily attendance was 532 against 582 in the previous year. A similar advance appears also in the School department, the number on the rolls being 899 against 821. Greater regularity was also secured in the attendance. Vigorous attempts appear to have been made to restrict the new admissions to the school classes.

The nationality of students in the College department is given in the margin. There was an advance under all the nationalities. Only 35 of the total number belonged to the poorer classes.

	31st March 1890.	1891.
Europeans and Eurasians.	4	6
Native Christians	56	60
Muhammadians...	5	11
Brahmans	364	374
Non-Brahman Hindus	178	215
Pariahs, &c.	16	6
Total	623	672

The students of the College gained two of the special rewards at the B.A. examination, and it is also noted that three of the six candidates who passed the M.A. examination were graduates of the College. The Acting Director fully appreciates the sympathetic interest shown by former students who come forward in various ways to the help of the College. Besides being useful in many other ways, the College calendar, now in course of preparation, will help to keep alive these feelings of loyal regard for and interest in the College among former students throughout the Presidency.

The Council has been well advised in deciding to withhold the grant of free scholarships. A similar course has recently been sanctioned with respect to the Presidency College. The Acting Director trusts that the mofussil colleges will soon see their way to do away with the system of eleemosynary collegiate education, and to institute, if funds permit, stipendiaryships to be awarded on the results of an open competition in place of free and half-free scholarships.

The use made of the library was highly satisfactory. The students are to be congratulated on the success which attended their various societies and clubs.

The Acting Director notes with great satisfaction the formation of a Retiring Fund for benefit of the European Professors, largely through the munificence of the Rev. Dr. Miller and the Rev. Alex. Miller of Buckie. It is to be hoped that the advantages of the movement will in course of time be extended to the Native staff, and that the leading institutions in the Presidency will ere long do something in this direction. The rules framed for the administration of the fund seem well-considered.

There is every hope that the Council's endeavours to extend the Biological laboratory and build a class room will receive the cordial support of Government.

The total cost of the institution, including the School department, amounted to Rs. 1,00,366, of which Rs. 22,667 or 22.6 per cent. was met from Government grants and Rs. 55,431 or 55.2 per cent. from the fee-income.

In conclusion, the Acting Director congratulates the Council, the Rev. Dr. Miller and the members of the staff on the successful administration of the institution during the year.

Report on the Reformatory School, Chingleput, for 1890-91.—The year opened with 109 boys on the rolls and closed with 140. There were 50 admissions and 19 discharges against 27 and 3 respectively, in the previous year. It is to be regretted that the school cannot accommodate more than the present number. No steps can, however, be taken to provide the necessary additional accommodation until Government has passed final orders as to the place where the school is to be located permanently.

Castes and classes.—As usual, Sudras predominate, and next to them come Muhammadans and Native Christians. Eight Muhammadans were admitted into the school during the year. It is worthy of note that only a small proportion belongs to the professionally criminal classes. Most of the Sudras belong to inferior sections, and have been subjected to little or no intellectual or moral discipline in their early years. This is to some extent evidenced by the troublesome conduct of many of the new pupils. There was an increase in the number convicted of theft and of house-breaking and theft.

Physical education.—Instruction in gymnastics has been regularly given since November 1890 in addition to exercises in drill, and the Reformatory pupils successfully competed at the annual sports which were thrown open to pupils from other schools in the town. The Gardening work also tends to improve the physique of the pupils.

Tone and discipline.—The conduct of 76 or more than one-half of the boys was so good that no punishment whatever was recorded against them. Owing to the refractory conduct of some of the newly admitted boys, the number of cases of corporal punishment rose from 60 to 119. There were but two attempts at escape in spite of the ample facilities, which the present arrangements afford for eluding the watch.

Considering the short period the school has been in existence, the creditable results secured at the various public examinations, the successful working of the mark system, the settling of most of the released pupils to some trade or other in life, the prospects of the school must be regarded as most encouraging. With increased interest on the part of the Visiting Committee, sustained energy on the part of the teaching staff and Superintendents and improved accommodation, there is every hope of the institution fulfilling its object.

The Superintendent, his Deputy and the Staff deserve much credit for their unsparring exertions for the well-being of the institution.—*Pro. No. 12349 of 24th October 1891.*

Budget Estimates of District Boards and Municipalities for 1892-93.

The Acting Director of Public Instruction resolves to communicate to the Inspectors of Schools and the Inspectresses of Girls' Schools and Assistant Inspectors, copy of letter No. 12491, dated 23rd October 1891, addressed to the Presidents, District Boards, and Chairmen of Municipal Councils, regarding the submission of extracts from the budget estimate for 1892-93. The Inspector of Schools, Western Circle, the Inspectresses of Girls' Schools, and the Assistant Inspector of Schools, should forward their proposals direct to the Presidents of District or Taluk Boards, or to the Chairmen of Municipal Councils, but Assistant Inspectors should consult the Inspector of the Circle on their proposals generally before sending them in. The Acting Director trusts that the above officers will, when practicable, personally discuss with the District and Taluk Boards and Municipal Councils the educational position and necessities of each District or Taluk Board or Municipality before forwarding their proposals, and that they will render every possible assistance to the above officers in the discussion of the budgets. The Inspectors of Schools are requested to submit, as soon as possible, their views regarding the decision arrived at by the Boards or Municipal Councils concerned on the proposals made by Assistant Inspectors, dealing fully with those points in which there has been any difference of opinion between them or their Assistants and the Board or Council. They should also notice the omission to provide for any necessary educational object, such as accommodation for schools, schools for indigent classes, &c. This is necessary in order to put the Director in possession of the arguments *pro* and *contra* on the several points at issue, and to enable him to advise Government fully with regard to the educational requirements of each Board or Municipality as the case may be. The Inspectors are also requested to state whether due provision has been made under each major head.

2. Where the strengthening of the staff of Inspecting Schoolmasters is much needed, it should be brought to the notice of the District Board concerned. Every District containing a large number of Muhammadan schools of any kind whatever, should be provided with a Muhammadan Inspecting Schoolmaster.

3. In Local Fund circles and Municipalities, where there are Muhammadan schools, provision should be made for sending annually one or two teachers to the Muhammadan Branch Normal School, Madras, for training. The scholarship now given is Rs. 8, but this may be enhanced by the Board, if necessary. The Sub-Assistant Inspectors of Muhammadan Schools should be able to report whether there are any teachers willing to undergo training.

4. Government in its order, dated 23rd July 1891, No. 567, having transferred to Provincial funds the charge on account of Training schools in all the districts, Madras and Tinnevely expected, with a view to set free funds for a great expenditure than hitherto on Primary education, the Inspecting officers should submit definite proposals to the respective Taluk Board for opening Salary-results schools in suitable localities, particularly for backward and indigent classes. The whole of the allotments hitherto made for "Training schools" by the District Boards will be distributed proportionately among the Taluk Boards to be utilised in the opening of Salary-results schools.

5. The Inspectors are also requested to see that suitable provision is made for technical and physical education, as well as for sending the sons of artisans and others to the School of Arts, Madras.

6. The question of organizing Sessional schools for the special benefit of teachers who cannot avail themselves of Training schools should also receive attention. This will continue to be a charge on District Boards' funds as heretofore, as Government does not contemplate the transfer of Sessional schools to the Department. The Acting Director is inclined to believe that, unless these schools are more largely established and worked with success, the proportion of unpassed teachers will continue high. The Inspecting officers should give their earnest attention to this subject.

7. The attention of the Inspectors is also drawn to Proceedings No. 697-O, dated 2nd November 1889, regarding the question of grading the masters of Salary-results schools, and they are requested to submit, if they consider it expedient to do so, proposals for grading the masters of the schools concerned on the lines sketched in the Proceedings in question. It is understood, however, that many of the districts have already adopted the grading proposed in those Proceedings.

8. The Inspectors or Assistant Inspectors are requested to invite the attention of Local Boards to the financial position of any school, Secondary or Primary, the cost of which is manifestly excessive, and to suggest the necessary reductions in expenditure. In several divisions, the cost of some of the schools maintained is out of all proportion to the work being done in them.

9. The Acting Director regrets to observe that the provision for results grants made in several budgets for 1890-91 was not properly utilized. The budget provision should be fixed with reference to the approximate demand, which must be carefully reckoned on the basis of the actuals of the past and current years, and a careful estimate of the number of pupils likely to be presented in the ensuing year for the various standards. Maximum rates of results grants should generally be recommended except in the case of Municipalities, where elementary general education having sufficiently advanced, such help is not needed. Where the Boards or Councils have notified reduced rates, the fact should invariably be recorded in the covering letter. The revisions suggested in Chapter III of the Grant-in-Aid Code, which await the approval of Government, are likely to affect the allotments under "Results grants." As soon as sanction to revised Chapter III is received, Inspecting officers will submit any alterations that may be necessary in the estimated grants.

10. The Inspector's remarks should be submitted in time to enable the Director to place his views before Government so that they may be considered when orders are passed on the budget. They must treat the budget correspondence as urgent, and it should be given precedence to all other works. The Director expects to receive all the budgets by the 15th January next.—Pro. No. 13220, dated 18th November 1891.

EDUCATIONAL NOTIFICATIONS.

LOWER SECONDARY EXAMINATION.

Notice is hereby given that the Lower Secondary Examination of 1891, in the Madras District will begin at 10 A.M., on the 1st December, for Male Candidates at the Senate House; and on the 7th for Female Candidates at the Presentation Convent. Candidates, both Male and Female, are requested to bring slates, pencils, pens, English and Vernacular reading books, English and Vernacular copy books, and Vernacular anthology. The examination of Female Candidates taking up Mathematics will be held on the 1st of December, from 2-30 to 4-30 P.M., at the Senate House, together with Male Candidates.

Pachaiyappa's College,
23rd October 1891.

A. E. DUCHESNE,
Chairman, Madras District.

The affiliation to the Madras University of the Church Mission Society's College, Kottayam, and the High School, Aurangabad, from 1st January, 1892, as Second-grade Colleges, has been sanctioned by Government.

LEAVE AND APPOINTMENTS.

M. R. Ry. C. Nagoji Rao Pantulu Garu, Inspector of Schools, Northern Circle forough for one year, from or after the 15th December 1891.

Surgeon-Major W. Price, M. D., to be Principal, Medical College, vice Surgeon-Major J. H. Ritchie, M. B., deceased.

M. R. Ry. K. S. Rama Rao, Third Lecturer, Kumbakonam College, privileged leave for two months with effect from the 13th ultimo.

M. R. Ry. K. P. Guruswami Aiyar Avargal, B. A., Third Grade Lecturer, Kumbakonam College, acting, during the absence on leave of M. R. Ry. K. S. Rama Rao. To take effect from the date of his joining.

List of Subscriptions received on account of the Madras "Journal of Education," from 1st October to 30th November 1891.

	RS.	A.	P.
Secretary, Military Female Orphan Asylum, Madras ... for 1891 ...	4	8	0
President, Taluk Board, Srivilliputtur ... Sep. 1891 to Aug. 1892 ...	4	8	0
McCready, Tallapudi, Godavery ... for 1891 ...	4	8	0
Principal, London Mission School, Mirzapur ... from July to Dec. 1891 ...	2	8	0
V. K. Kartikar, Deputy Educational Inspector's Office, Kolhapur from July 1891 to Aug. 1892 ...	4	8	0
Head Master, Board Normal School, Vizagapatam ... July 91 to Jan. 92 ...	4	8	0
Head Master, Middle School, Coimbatore ... for 1891 ...	4	8	0
Chairman, Municipal Council, Dindigul ... do. ...	5	8	0
Head Master, Mapilla Normal School, Calicut ... do. ...	4	8	0
Chairman, Municipal Council, Tellicherry ... do. ...	4	8	0
A. F. Lemerle, Tellicherry ... do. ...	5	8	0
The President, Taluk Board, Bellary ... do. ...	4	8	0
The President, District Board, Bellary ... do. ...	4	8	0
Lady Superintendent, Phoenix Institution, Vepery ... do. ...	4	8	0
Macmillan, Esq., Elphinstone College, Bombay, Oct. 1891 to Mar. 1892 ...	2	8	0
B. MacLeod, Vellore ... for 1891 ...	4	8	0
Head Master, Cantonment A. V. School, Rolarum Sep. 91 to Aug. 1892 ...	4	8	0
A. F. Sealy, Esq., Cochin ... for 1891 ...	5	8	0
Manager, Bishop Cotton's College, Bangalore ... do. ...	5	8	0
Rev. Sidney Lang, Coimbatore ... do. ...	4	8	0
Head Master, Hindu Normal School, Nadapuram, North Malabar April 1891 to March 1892 ...	4	8	0
Head Master, L. F. Hindu Normal School, Calicut ... for 1891 ...	5	8	0
Superintendent of District Schools, Trivandrum for 3 copies Aug. 1891 to July 1892 ...	13	8	0
Head Master, High School, Ahmadabad ... for 1891 ...	4	8	0
W. Kees, Esq., Agricultural College, Saidapet ... do. ...	4	8	0
Rev. Mother Superior, Nazareth Convent, Ootacamund ... do. ...	4	8	0
M. Srinivasa Row, Esq., Head Master, Zemindary High School, Parlakimedy ... Aug. 1891 to July, 1892 ...	4	8	0

