

INTRODUCTION
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Vol. 1

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A MONTHLY REVIEW

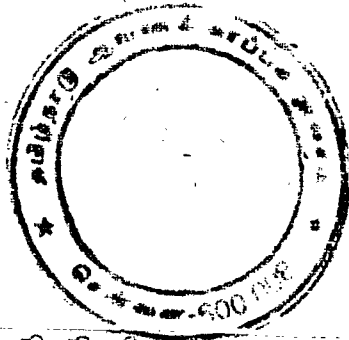
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JANUARY TO DECEMBER 1893

Madras:
V. KALYANARAM IYER

1893



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INDEX.

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JANUARY TO DECEMBER 1893.

A	PAGE.		PAGE.
Academic Costume ...	72	Bombay University Fellows ...	107
Acland's new circular to Inspectors of English schools...	165	Do Union ...	531
Do. Committee for advancing Secondary Education ...	264	Book-Plate—The meaning of ...	267
Americanisms ...	314	Browning E. B.—Letters to R. Browning ...	313
Americo-Indian Geographical Names, their historical meanings, by Emil Seytter, Ph.D. ...	490	Burma—a University for ...	409
Anniversary of the Discovery of America ...	135	„ —a University for—by Hon. Mr. Justice Jardine ...	476
Athletic Association—The Madras ...	344	„ —by the Rev. Fr. Marks ...	679
Do. Bombay ...	360,605,790	Butter—Bacilli in ...	173
Auckland College, New Zealand, Professorship of Mathematics in ...	468		
Affiliation of Indian Universities to Oxford University ...	345		
B		C	
Baroda—Vernacular Education in ...	305	Certificates—Rules for Leaving ...	163
Better way—The ...	136	Chemical Research—Danger in ...	111
Bharatas—The, by Dr. G. Oppert ...	202	Chloroform—the preservation of ...	112
Bleaching-powder—a new ...	173	Christian College Day—Madras ...	44
Books and Reading by S. Sathia-nadhan ...	20	Civil Service in England and India—Simultaneous Examinations for ...	402
Books received ...	248,397,418 526,594,670,743	Classical Education, by Oakman ...	414
Books—The best ten American ...	492	Colvin Talukdar's School Lucknow—The ...	350
		Commercial and Technical High School, Madras ...	405
		Committee for Organization of Secondary Education in England ...	264
		Competitions—Our prize ...	235

	PAGE.		PAGE.
Compulsory—Education ...	305	Educational Journals—attitude of Teachers toward ...	315
Convocation of the Allahabad University—The ...	139	Educational Reviews—Review of ...	115,177,250
„ Bombay ...	136	Education—Classical ...	414
„ of the Calcutta University ...	84	„ —Primary—in France ...	516
„ Ceremony ...	131	Educational Congress at Madrid ...	438
„ Chicago University ...	264,402	Education—Secondary and State—by Sadler ...	517
„ London University ...	522	Education as a means of Patriotism ...	76
„ Madras ...	209	Election of Fellows by University ...	274
Council of Education—London—Report of the Committee ...	651	„ —Rules for—Madras University ...	489
Currency—Side Lights on—by Ewbank ...	431	„ of Fellows to the Madras University ...	230
Correspondence 44,115,176,318,367,559		Emblems, Colours as ...	515
D		England—Educational Committee's Report ...	51
Dramatic Performances—Recent Native ...	15	English School Boys—Reply to Questions by ...	393,519
Day of the week for any date—on determining ...	282,635	Engineering College—The Madras Civil ...	81
Dental Inspection in Schools ...	43	English Sounds ...	160
Divisors—an Extension of the method of ...	157	Examination Papers—L. T.—of the Madras University ...	138
Director of Public Instruction, Madras, Hon'ble Mr. A. Monro ...	602,678	„ —Madras Govt. Technical ...	80, 275, 325, 449.
Dr. Barnardo's correspondence ...	406	„ —Madras Lower Secondary ...	470, 472, 711.
Dunces—Interesting account of famous ...	309	„ —For Teacher's Certificates ...	594
E		„ Results and causes of failures ...	164
Editorial Notice ...	1	Examiners—Madras University—	
Education—Memorandum on Technical—by J. Adam ...	5	for 1893-94 ...	364
„ Burma and Ceylon ...	9	„ —Panjab University—	
Educational Notifications—Madras ...	64,191,397,463,527,600,671,744	for 1893 ...	415
Editorial Notes ...	42,65,129,193,273,337, 401,465,529,601,673	F	
Education—The Memory in—by G. T. W. Patrick ...	293	Fellows—Regulations for Election of ...	194
Education—The Philosophy of—by Hon. W. T. Harris, LL.D. ...	535	Fellowships at Oxford ...	262
Education—The Relation of Theory and Practice in—by Dr. R. W. Mell, M.A., F.C.P. ...	616	French Statistics ...	263
Education—Public opinion in ...	629	Failures in Madras University Examination ...	163
„ —by correspondence ...	206,421	G	
Educator—Milton as an—by Rev. Phillips Brooks ...	544	German University Statistics ...	168
Educational Broth—by F. Allison Tupper ...	628	Geographical Nick Names ...	439
Educational Grant in England and Wales ...	391	Girls in the Gymnasium—by Laura Brownell Collier ...	358
		Gilchrist Scholar ...	574
		Grant Duff—Sir M. E.—op Secondary Educations ...	217

	PAGE.		PAGE.
H		M	
Hampden—Narrative of the death of ...	313	Mathematical Pages ...	237,371,586,713
Hodgkins' Fund Prizes ...	529	Madras—Literary Society and Auxiliary of the Royal Asiatic Society—Report ...	171
Hunter, Mark—Carlyle's Boswell's Life of Johnson ...	395	Mathematical Talent ...	508
I		Mahyalam Vidya Vinodini ...	512
Imperial Institute and Northbrook Club ...	425	Do. Maharani in ...	649
Imperial Institute—Constitution of ...	521	Madras University Medical Degrees—Recognition of—in England ...	533
Indian History—The Teaching of—in our colleges ...	1	Do. Syndicate Report ...	675
Indian Students in England 128,272,336, 400,493,631		Metric System in France and Germany ...	268
Indian History—The Study of—by Sir T. Muttaswami Aiyar ...	201	Do. Its desirability for India ...	270
Instruction, Public—in Mysore, 1891-92 ...	351	Minto—Death of Professor ...	196
„ in China ...	314	Muhammadan Education in Madras Presidency ...	403
Indian Journal of Education ...	65	Music—Madras School of ...	316
Interpretation of A. D. and B.C. ...	185	Do. Schools in Baroda ...	423
Indian Cards for New Year Greetings ...	106	Munshi for teaching Hindustani ...	342
Industrial Training in Scotland ...	392	Mysore Sanskrit College ...	47
„ Conference at Poona ...	725	N	
Instructions issued to Inspectors ...	392	National Indian Association, 1892 ...	407
Inter-School Gymkhana for South Canara ...	604	News and Notes ...	45,104,162,258,305
K		New College—Opening of a ...	278
Krates of Mallos, and Columbus—by Gudeman ...	355	News—General ...	387,433,512,655
Karnool—Education in ...	309	Notes—Indian ...	373,418,503,575,636,721
L		„ —Literary ...	383,428,510,585,645,726
Last Words of Great Men ...	51	O	
Law College—Madras—Report of ...	579	Only To-day ...	625
Legacies to Educational Institutions ...	514	Opics—A note on—by T. R. Venkata-swami Nayudu, B.A. ...	633
Legislative Council—Madras University—Educational member ...	465	Oriental Manuscript Library; Madras ...	508
Literature—The value of—in Moral Training—by Charles DeGarmo ...	687	O.U.G.H.—The pronunciation of ...	449
London University—Reorganization of ...	132	P	
Do. Matriculation and other Examinations ...	262,347	Patchwork Verses ...	103
Lower Secondary Examination, Madras ...	470,472,711	Pedagogical—Truisms ...	166
London Letter—Our ...	581,651,729	Phillips, Col. A. N.—Hindustani Idioms ...	60

	PAGE.
Protest against the new Affiliation Rules of the Calcutta University...	426
Prize Competitions—Our	130, 161, 302, 369, 418, 495, 568
Provincial Civil Service	130
Presidency College, Madras—Report of the	580
Punjab Association—Report of	603, 644
Public School Life in England, by H. P. Jacob	648

R

Reconstitution of the University of London—Outline of Scheme for the	145
Reformatory School—Report of the	381
Revenue work—Dislike of	195
REVIEWS AND NOTICES OF BOOKS:—	
Adam, John—Readings in Prose	124
Aitchison, Sir C.—Life of Lord Lawrence	54
Airy, O.—Text-book of English History	123
Aiyasami Aiyar—Full Notes on Barrow's Readings	125
Almanacs—The Asylum Press	126
Arden, Rev. A. K.—Tamil Reader, Grammar	742-3
Baldwin, J. M.—Elements of Psychology	740
Bennett, Edith A. and H. C. O'Neill—Primer of Domestic Economy	63
Beard, W. S.—Junior School Men-suration	238
Bidgood, J.—Practical Elementary Biology	186
Bottone, S. R.—Electricity and Magnetism	593
Brink, B. T.—History of English Literature. Translated by W. M. C. Robinson	440
Browne, A. J. J.—Geology	590
Buckley, A. B.—History of England	397
Calendar of the Victoria College, Palghat	126
Chambers—Expressive Readers	447
Chambers, W. R.—Brief Geography of the World	397
Constable—Oriental Miscellany of Original and Selected Publications	55, 122

REVIEWS, &c.—(Continued.)

Cook, A. M.—Macmillan's Latin Course, Second Part	446
Cook, J.—Physics	668
Dowden, E.—Wordsworth's Poetical Works—Aldine Edition	59, 186
Dutt, R. C.—Ancient India	660
Edwards, J.—Differential Calculus for Beginners	391
Elliot, E. H.—Chaucer's The Clerk's Tale	669
English History—Simple Stories from	323
Fasnacht, G. E.—Macmillan's Course of French Composition	58
Gow, J.—A Method of Teaching English for Secondary Schools	241
Grasby, W. C.—Teaching in the Three Continents	52
Gray, Rev. R. M.—Notes on Tennyson's Idylls of the King	323
Gregory, R. A., and J. C. Christie. Advanced Physiography	524
Green, J. R.—A Short History of the English People	738
Hart—Formation of the Union	181
Hayward, R. B.—The Algebra of Co-planar Vectors and Trigonometry	239
Hawthornthwaite, J. T.—A Manual of Elementary Statics with Key	394
Hakim, D. B.—A Hand-Book of English Parsing	668
Hafed—A Dream and other Poems	743
History Readers, Bk. VI	525
Horns, A. H.—Metal Colouring and Bronzing	61
Hoare, W. E.—The 4th Form Reader	126
Hunter, Sir. W. W.—A Brief History of the Indian Peoples	57
Hunter, Mark—An Introduction to Greek History	182
Hughes, W., and J. F. Williams—The Geography of the British Colonies and Dependencies	322
Jackson, S.—Commercial Arithmetic	524
Jelly, J. D. R.—The Student's Arithmetic	593
Jhaveri, K.—Persian Prosody	324
Kellner, L.—Historical Outlines of English Syntax	182

REVIEWS, &c.—(Continued.)

Krishnan Pandalai, K.—Chemistry (Malayalam Primers.)	666
Lawrence, J. T.—A Dictionary of Musical Biography	62
Lawrence, J. T.—The Church Organ and Harmonium	241
Lakshmi Narasu Nayudu, P., B.A.—Notes on Qualitative Chemical Analysis	241
Lala Sagar Chand—Notes on Kingsley's Westward Ho	323
Lethbridge, Sir R.—The History of India	668
Livy, Bk. IV	448
Longman's 'Ship' Historical Series, Bks. IV and V	525
Lyttleton, E.—Mothers and Sons	185
Marchant, J. R. V., and J. F. Charles—Cassel's Latin Dictionary	124
Macaulay, G. C.—Tennyson's The Marriage of Geraint, Geraint and Enid	242
Marshman, J. C.—Abridgement of the History of India	664
Malleson, G. B.—Lord Clive. (Rulers of India Series)	737
Mody, M. F.—Notes on Silas Marner	395
Narasimmalu Naidu, C.—Trivargam in Telugu Verse	244
Nall, Rev. G. H.—Xenophon's Anabasis, Bk. VI	396
Nixon, A.—Longman's Elementary Book-Keeping	63
Nicholls, H. A.—Tropical Agriculture	321
Palgrave—The Children's Treasury of Lyrical Poetry (Golden Treasury Series)	185
Page, T. E.—Vergil's Æneid, Book I	396
Paul, F. T.—A Text Book of Domestic Economy	446
Percival, H. M.—Spenser's Faerie Queene, Bk. I	445
Pollard, A. W.—Chaucer	396
Pope, Rev. G. U.—Little Raja's Primer of Indian History	444
Poole, S. L.—Aurangzib. (Rulers of India Series)	588
Ray, S.—Algebra, Vol. I	394
Roby, H. J., and A. S. Wilkins—An Elementary Latin Grammar	448

REVIEWS, &c.—(Continued.)

Ryland, F.—Ethics	187
Satthianadhan, S.—Four years in an English University	669
Smith, W. B.—Introductory Modern Geometry of Point, Ray and Circle	592
Srinivasa Rao—A Text Book of General Geography	319
Storr, F.—The School Calendar, 1893	396
Storr, J.—French Dialogues	58
Sweet, H.—A Manual of Current Shorthand	238
Temple, Sir R.—James Thomason	442
Tennyson's Idylls of the King—Notes on	418
Tout, Professor T. F.—Edward the First	740
Trotter, Captain J. L.—The Earl of Auckland. (Rulers of India Series)	658
Vaidyanatha Sastriyar, M. R.—Vaikhanasa	525
Victoria Educational Almanac and Directory for 1893—The	248
Welch W., and C. G. Duffield—Elementary Classics	63
Williams, J.—Cassel's English Dictionary	124
Richard Mulcaster and his "Elementario," by Foster Watson, M.A.	94
S	
Sanskrit—M.A.—Text Books of the Calcutta University	345
School Age in old Rome—The	156
School Devices	156
School Globes—How made—by S. Radakrishna Aiyar, B.A.	232
School Libraries	274, 331
Scholarships—Indian Government	630
Scholarship Society—Kumbakonam College	579
Scientific—Notes	111, 172
Science and Art—Report of the Department of	735
School built of gray granite—A	169
School—Graduation Committee, London	653
School Exhibits in the World's Fair	438
Sergants—The Two	125

THE
JOURNAL OF EDUCATION
MADRAS.

EDITORIAL NOTICE.

THE TEACHING OF INDIAN HISTORY IN OUR
COLLEGES.

The school course of History cannot, at its best, be an ambitious one; but we have a right to expect something more definite and promising from our colleges. It is incredible, however, what little encouragement the Indian University system offers for the promotion of the proper study of Indian History. The Matriculation candidates offer a mere outline of the facts of Indian History, how bare an outline those who conduct the examination know only too well. Yet, having passed the Matriculation examination the student may proceed to his degree, even supposing him to take history as an optional subject, without any further acquaintance with the history of his own country. For the F.A. course the only history required, at least so far as the Madras University is concerned, is Schmitz's *Ancient History*. Important as is the knowledge of the history of Greece and Rome, its importance to the Indian student who knows nothing of the

language and literature of those two countries, may be over-rated. But what seems the most incredible thing of all is that when a man has evinced some taste for historical study by offering history as his optional subject for the B.A. degree, so far from being induced to study Indian History, there is absolutely no provision made for him to study it at all. For his degree he must make an elementary acquaintance with the English constitution as prescribed in books of which Stubbs' *Constitutional History* is not one; viz., P. V. Smith's *History of English Institution*, Creasy's *Constitution of the Britannie Empire*, Stubbs' *Select Charters*, Part I. For his general history, *The Student's Gibbon* and Bryce's *Holy Roman Empire* are prescribed. There is also a special period; for 1892, Russia under Peter the Great, for 1893 the formation and consolidation of the constitution of the United States, 1770-1790, for which apparently no books are prescribed. The course is completed with Maine's *Ancient Law* and certain chapters of Fawcett's *Manual of Political Economy*.

One might complain of the scrappy and superficial knowledge which such a course engenders; that the student is scarcely sent to the fountain-head of history, and is brought too little into contact with its master minds. But these strictures, in our opinion, may well be allowed to pass in order to concentrate attention on the astonishing fact that Indian History has no place at all in the course. It is no answer to say that Indian History is one of the subjects of the Matriculation Examination. The very elementary knowledge of Indian History necessary to secure a 'pass' in that examination does not justify the preclusion of a further study of the subject on the part of those who offer history as an optional subject for their degree. Nor is it sufficient to allege that the M.A. degree presents the opportunity which is lacking in the B.A. degree. The B.A. course is the complete University course for most men, and few men have the time or money to proceed to the M.A. degree. A course of general history, too, is doubtless necessary as a basis for its special study, and this general course the B.A. Examination to some extent provides; but a further acquaintance with Indian History should form part of that course, and opportunity should be afforded whereby those students who felt so inclined might take their B.A. degree on the strength of having specialised in some particular subject. We shall probably be met

with the objection that the educative value of Indian History is so small as to justify its exclusion from the history optional branch for the B.A. degree. We have no wish to contend that its educative value is in any way commensurate with the value of the history of such countries as Ancient Greece and Rome, of England and France and other countries. Such histories as these, if subjected to the proper method, may be made subjects of philosophical study calling into play the highest mental faculties of the student. So much we cannot expect from a study of the history of India. But that does not seem to us a sufficient reason for its absolute exclusion in a history course for Indian students. Surely a minute acquaintance with the history of one's own country is not too much to expect from students who offer history as the optional branch in their degree examination. The last word on Indian History has not yet been spoken, as is evidenced by the increasing number of books of original research which have recently been produced by many Englishmen and some few natives of the country. Is it not true that the popular estimate of Hastings as formed by Macaulay is one now in process of modification, indeed, of reversal? Is nothing further to be gleaned from the numberless documents which Dr. Forrest is unearthing concerning Clive and his times, to say nothing of times more remote? Of course we do wish to suggest that such documents and researches should form part of the work demanded from an aspirant for a 'pass' degree. But, unless we interest the history student in the history of his own country, we can scarcely expect him afterwards to take spontaneously to the subject, or to produce anything original relating thereto.

The remedy seems to us to consist in the creation of Honours schools such as exist in the Universities of Oxford and Cambridge; in other words that the student should be allowed to specialise for his B.A. degree, if he were so inclined. We admit the dangers that wait on specialisation in India. We are apt to overlook the fact that English is, after all, a foreign language to the student and that there is a real danger of the student specialising before he is sufficiently grounded in the English language to admit of his profiting by a study of a special subject. But the F.A. Examination should be a sufficient guarantee that the student is so grounded in the English language. The burden of the F.A. student has of late been considerably lightened—but not sufficiently

to our mind. The F.A. student is still examined in a multiplicity of subjects including English, the Vernaculars, Euclid, Algebra, Trigonometry, Physiology or Physiography, and Ancient History. We think that one, or even two, of these subjects, might be dropped with advantage. For instance, if a student has no particular aptitude for, or does not intend to specialise in, the subject of Mathematics, such a subject might well be made optional in the F.A. Examination. The amount of mathematics required for the Matriculation Examination is more than sufficient for the purpose of such a student in after-life and affords him sufficient exercise in exact reasoning. The smattering of Physiology required for the F.A. Examination is of little value from an educative point of view, for it is notoriously a subject which is crammed up for the occasion. The test in English might then be made a little more severe, and more attention given to those subjects in which the students intend ultimately to specialise. In this way the student might be gradually prepared for the serious study of some one subject and might leave the University with a definite knowledge of, and predilection for, that subject. In short, an honour's examination should be created for those who elect to specialise, while for a 'pass' degree the present examination courses might well be allowed to remain. If such an innovation were made, then the history student should most certainly be compelled to make a special study of the history of India. As it is, he has a knowledge of the bare outlines of Indian, English, Greek and Roman, history and a portion of general history, such as we have indicated. He knows something of everything, and little of anything. To call such a man a student of history is an abuse of terms. Of the science and philosophy of history he can know but little; he has never been brought into direct contact with the materials of history, and with his present knowledge would neither value nor know how to make use of them if he were so brought into contact with them. The materials for the history of India lie to hand in all quarters of the country, but the task of searching them out and using them has, so far, mainly fallen to the lot of foreigners, although the advantages of natives writing the history of their own country are obvious and manifold. The regrettable collapse of the Maine Historical Society, in Madras, is proof how little hold the subject of history has on the students; and until students acquire something more than the elementary and

superficial knowledge which is at present their lot, the *raison d'être* for such societies is scarcely evident. Useful in their way as are the College Historical Societies which exist, those who know them best must acknowledge that little or no original work is done by them, and that apparently their chief function is to afford the student an opportunity for retailing the details of his text-books. This should not be so; nor would it be so if the student were allowed to specialise in history for his B.A. degree and took up some such course in history as is laid down for the M.A. Examination. We do not wish to draw invidious or useless comparisons; but the flourishing condition of the College and University historical societies which exist in England is proof that good work is done by students when circumstances are favourable. The Oxford student may devote more than the last half of his course to his special study, and there are those who propose to subordinate Moderations, or the intermediate examination, to the same purpose. Over-specialisation is an evil which we admit and which, as we have shown, must be specially guarded against in India; but allowing this, we are of opinion that so far as history is concerned, specialisation on a large scale must be allowed, and the History of India have a recognised place if any improvement is to take place in the teaching of Indian History in our Colleges.

MEMORANDUM ON TECHNICAL EDUCATION.

Mr. John Adam, M.A., the Principal of Pachaiyappa's College, Madras, is well qualified to speak on the subject of Technical Education. If, as is undoubtedly the case, Madras takes precedence of the other Presidencies in the matter of Technical Education, the result is in some measure due to the pioneer efforts of Mr. Adam, who has written on the subject, and who has been for some time connected with the Victoria Technical Institute, and with Chengalvaraya Nayaker's Commercial School. Mr. Adam made good use of his recent twelve months' turlough to England in many ways, and among other achievements he managed to find time to visit several of the best known technical institutions in that country. The result of those visits lies before us in the shape of a memorandum on Technical Education in England with suggestions as to the future work of the Victoria Technical Institute in Madras—a memorandum

which, we can assure Mr. Adam, he has succeeded in presenting in a form (to use his own words) "both agreeable and edifying."

No particulars of the systems in force in Germany, France, the United States, or other foreign countries are given by Mr. Adam. The reasons supplied by Mr. Adam for this—what we cannot help thinking unfortunate—omission, are, to say the least, ingenious. The fact that he 'can speak from personal investigation of Great Britain alone' is a sufficiently cogent reason for the omission. But we cannot endorse Mr. Adam's opinion that it was not necessary to give such particulars, or further when he remarks:—"There is some advantage in concentrating attention on one system; and the advantage is all the greater when the circumstances are such as we find them. The British system is neither a brand new scientific scheme nor an old crystallization which has by mere lapse of time become apparently fitted to the people and their wants. It is a modification and adaptation of a system or congeries of systems which had fallen behind the age, which had ceased to be able to meet the demands put upon it by a newer generation. The moulding has been under the pressure of public opinion; the new departure has been under the spur of necessity. Nor is the process of development complete: one can see the operation in progress, one can note the failures as well as the successes; we in our own tentative stage can thus learn what to avoid no less than what to aim at."

The same argument would apply with equal force to the present chaotic state of secondary education generally in England. Educational reformers in England are showing their wisdom by thoroughly studying the educational systems of the countries mentioned by Mr. Adam. Surely where technical education has been so completely successful as in Germany there must be much of the working of the system in that country which it would be highly instructive to know. Had Mr. Adam included Germany in his Memorandum, he would doubtless have given it as his opinion that technical education, as indeed all education, in Germany is so successful, because "Kindergartenism" is the basis of all instruction. "Kindergartenism" as such, is practically unknown in England, in India wholly so. What generally passes muster in England as 'Kindergartenism' as practised in elementary infant schools is widely removed from the system as practised in Germany. After reading the

posthumous work of Mr. Joseph Payne, containing notes of a professional visit to the kindergarten and other schools for Primary Instruction in North Germany, one cannot but come to the conclusion that 'Kindergartenism' is the necessary introduction to successful technical instruction. Take the very first institution that Mr. Payne visited, viz., the "Gewerbeschule für Mädchen" in Hamburg, and this conclusion is borne out.

"The arrangements have in view instruction not only in the practical arts of washing, ironing, cooking, sewing with needle and machine, cutting-out, and general house-keeping, but also in geometrical and freehand drawing, lithography, porcelain painting and burning. But this is far from all: the establishment contains (1) a high class school for girls who have passed through the upper classes of the ordinary schools. Here instruction is given in the German language, arithmetic, book-keeping, physics, geometry, &c. (2) Classes for the training of kindergarten teachers. (3) A kindergarten for children of from three to seven years of age." In the "Conclusion," Mr. Payne states wherein consists the work in the education of the young children whom he observed in Germany, "It (their work) consisted in countless processes of seeing, hearing, feeling, performed by the children themselves, and registering themselves in their minds as ideas, or in countless actions performed by their own limbs (especially their hands), and forming habits of doing. Now the very conception of ceaseless activity of their senses, mind, and limbs, excludes the notion of idleness; and I saw without surprise no idleness in the kindergarten. All was busy, healthy, happy life." We should have liked to have seen the connection between the Kindergarten and Technical Education particularly emphasised by Mr. Adam in his Memorandum, and we cannot help thinking that this would have been the case if he had included in his Memorandum some account of his subject in the countries he mentions. We can only hope that the Committee on Technical Education which is now sitting in Madras will pay some attention to the connection, and we take the opportunity to express our regret that Mr. Adam finds no place in that Committee. We are glad to see that Mr. Adam draws attention to the fact that Drawing in schools in England has been made compulsory—he only complains of the clumsy arrangement by which the Education Department has taken over the contro

from the Science and Art Department of South Kensington. No one can deny the intimate relation between Drawing and Technical Instruction, and we hope for the very adequate reasons which have lately been urged in this *Journal* that Drawing will soon be a compulsory subject in Indian Schools. In these two directions, then, Kindergartenism and Drawing, our schools may do much to lay the foundation for a sound technical education, apart from their advantage as a basis for all true instruction.

Mr. Adam has some suggestions to make for the improvement of Technical Education in India. It is scarcely necessary to say that so experienced and able an Indian educationist is fully aware of the economic and other differences which exist between this country and England. He is aware that no cut-and-dried system cannot be introduced with success into India. His suggestions are as modest and as practical as any suggestions could be. Some of them are for the Government and the Director of Public Instruction to consider—others for the Victoria Technical Institute. As regards the first, Government should make Drawing compulsory; it should grant aids elastically, i.e., local authorities should be entrusted with grants to spend as they think best; it should so modify the grouping for examinations as to provide in each Technical group for an amount of general education necessary as a basis for technical instruction, but selected so as to qualify with an eye to the special requirements of the group in question; and lastly, Government should order an enquiry into the industrial position of the people. As regards the work of the Victoria Technical Institute, Mr. Adam has formed some very strong views. First and foremost, he would have the Institute establish an Upper Secondary Technical School, on the model, *mutatis mutandis*, of certain specified schools in England. It is quite evident by implication that Mr. Adam has faith in the future of the Upper Secondary Course—but whatever name may be applied to the institution which he suggests, it is certain that such a school should be an accomplished fact. In such an institution there should be made provision for holding evening classes for teachers and others. Furthermore, the Central Institution should send out competent lecturers to deliver courses in much the same way as is done by the Delegates for the Extension of University Teaching in England. And finally, the Institute should endeavour to cultivate the closest

relations with Technical Schools in the Mofussil towns,' which Mr. Adam proposes doing through and by the direct supervision of the Institute. Mr. Adam is prepared to address the Institute in detail should it elect to accept the principle of establishing the school and find itself able to provide the funds; and he finally warns the Institute that the utility of any one of the schemes suggested by him 'will be greatly impaired without the school to serve as the centre of all the Institute's activities, and the object lesson to which its agents can always point.'

In the appendices Mr. Adam describes the several institutions he visited, under the respective heads of Towns, Counties, and India. A good insight is given into the work of these institutions, and much valuable information may be gleaned from Mr. Adam's accounts. We heartily commend the Memorandum to the notice of all those interested in the subject of Technical Education.

EDUCATION IN BURMA AND CEYLON.

Last year in reviewing the Annual Report of the Director of Public Instruction in Burma we noticed that the Chief Commissioner complained of the length of both the reports on Lower and Upper Burma. This year the Officiating Chief Commissioner complains that while the report for Lower Burma has been somewhat reduced in size, that for Upper Burma is even longer than in 1890-91. He thinks 'that now that public instruction in Upper Burma has ceased to be a novelty it will be possible next year to condense the report by leaving out the discussion of principles which are recognized.' After carefully reading through the report for Upper Burma, we beg to differ from the Officiating Chief Commissioner in thinking that public instruction is no longer a novelty in that province. It is evident that it is very much a novelty in some districts. However, we agree with him in thinking that it is not necessary to enter so much into the details of particular schools which have not distinguished themselves during the year as Mr. Pope, the Director of Public Instruction, has done. But we are not inclined to blame Mr. Pope for having succeeded, as heretofore, in producing a most readable report, even if he has introduced a few unnecessary details.

Of Lower Burma there is not much to call for remark. The number of schools in existence at the close of the year was 6,148 or nearly 400 more than in the previous year; of pupils nearly 6,000 more than in 1890-91, while the proportion of scholars to population of school-going age has risen from 16 to 19 per cent. The number of the students at Rangoon College has increased from 24 to 40, but it is interesting and instructive to note that 40 out of 44 students were holders of Government scholarships. Education in special subjects in Lower Burma seems to be in a very unsatisfactory condition. Of two branches the Officiating Chief Commissioner writes thus:—"Owing partly to the expatriation involved and partly to the more immediately lucrative prospects available in other walks of life, the medical and engineering scholarships tenable in India have attracted little competition and have given on the whole poor results. Out of nine engineering scholars two resigned and three failed to qualify for a degree. The medical scholars were generally unable to enter for the University examinations owing to their imperfect general education: they were therefore examined and passed by the College staff. The money spent on these scholarships has not secured an adequate return." We are glad to see that the same official attaches much importance to the subjects of kindergarten, Compulsory Drawing, Drill and Gymnastics, and makes the following wise statement as to what the Government can really do with respect to assisting Technical instruction. "The subject of technical instruction has lately attracted much public attention. The Government should no doubt encourage instruction in crafts, especially in those which require artistic skill, but this encouragement can only affect a few boys, while it is possible at a small cost to teach a large number to use their senses and to make them generally handy. For this reason the Officiating Chief Commissioner attaches much importance to drilling, drawing, and manual training, and in next year's report the Director is requested to report fully on the progress made in these subjects."

In Upper Burma everything is very hopeful. The inspectors have visited every district, even the most outlying ones, in the province, and have carefully studied on the spot the needs and wishes of the people. The people, through the school managers, have shown every desire to co-operate with the educational authorities,

ties, and interest in the subject of education has been generally aroused. The pôngyis are a difficult class to deal with, and, as we pointed out last year, they are the class which can do most to thwart the introduction of an efficient education into Upper Burma. A successful appeal to the religious prejudices of the people is only too easy. But the fine tact displayed by Mr. Pope's officers is evidently slowly winning over the more enlightened pôngyis to their cause. "No Pôngyi kyauung has received a certificated assistant teacher, or been put on the inspection list, till the pôngyi in charge of it, of his own free will and accord, asked to be allowed to avail himself of the advantages of the educational system—advantages he is perfectly free to accept or reject or ignore. The system is a free one and not the slightest attempt has been made to make it otherwise." We note with pleasure among the chief events of this year the formation of a Teachers' Association at Mandalay. It is evident that in Burma these Associations are invested with much more power than in India, and that consequently they are capable of creating a stronger professional feeling among teachers than exists in this country; for we are informed that in towns "where there are two or more English schools, the local branch of the Upper Burma Teachers' Association settles all questions affecting school discipline and the harmony of scholastic work." We are confident that these Associations will do much to stimulate young teachers to qualify themselves for their profession and will help to remove the stigma which rests on assistant teachers at present, inasmuch as not one of them holds an Anglo-Vernacular teacher's certificate. The pupil teacher's system, elsewhere almost universally condemned, is encouraged in Upper Burma because it is found that the best pupils in the school, if retained as pupil teachers, make, with their intimate knowledge of the school and its management, far better teachers than the average Lower Burman who has forgotten the little knowledge he gained at school and takes to teaching as a makeshift. Moreover, the supply of trained teachers is so much below the demand, that certificated teachers show reluctance to go to stations other than those they themselves choose. Of nuns and some managers the Director gives the following amusing description:—"The number of nuns' schools is beginning to decrease, as women are not so ready to assume the white robe. But this is no

great loss, for the nun is invariably old and ignorant and, when not sleepily teaching, is begging. In contrast with these managers are those who, having failed in business, have started a school with a view primarily to obtaining exemption from taxation. Not only is the school a mere pretence, but the manager is often in receipt of a regular income from his wife's petty trading in the bazar. Sometimes he is a doctor himself and compounds his potions, while his pupils chaunt their lessons, until he is called out to see a patient and have a gossip with the patient's friends, when the children promptly disperse and play. Managers, such as these, even when possessing a large school, are found to leave all the work of instruction to the trained teacher, if given the services of one. The majority of the pôngyi know little beyond the rules of the Padimauk and the prayers of the Mingalathók and Pareitkyi; but the few good men who really teach are excellent teachers. It is often the upazin rather than the head pôngyi who is the actual teacher in the kyaung. The able pôngyi has a reputation throughout the district, and draws pupils from far and near."

In the districts much remains to be done in bringing the children under the influence of even the most rudimentary education. Among the outlying tribes what little in educational work that is being done is due almost entirely to different missions to which agencies Mr. Pope very properly attributes the credit due for the large share in educational work which they undertake throughout Burma.

Female education is making slow but sure progress throughout Burma. Considering the natural aptitude which Burman girls display for learning, it is to be regretted that so many obstacles stand in the way of the girls. None of the monastic schools are available for them. "Taking all schools to which girls are admitted in Upper Burma, it is found that there are only four to a township, and each school on the average contains nine female pupils." The girls are found especially useful at home, and, when they are not, they are sent to school to be out of mischief or to accompany a younger brother.

In conclusion, we cannot but congratulate the Education Department in Burma on having so able, energetic, and stimulating a Director as Mr. Pope appears to be.

Ceylon, unlike Burma, has long been subjected to Western influences, and accordingly many of its educational features are common to countries which have long enjoyed the blessings of education. For instance, Ceylon is overstocked with teachers, and the supply continues to be in excess of the demand. There are over 100 teachers on the list for whom no employment can be found. The Director is seeking a remedy. He thinks it admittedly unsatisfactory to encourage candidates to qualify themselves for teacherships by examinations, and when they have so qualified to keep them waiting indefinitely until vacancies arise. Under such terms of indefiniteness the moral energy of the individual must suffer. Instead of turning his abilities to other industries he is encouraged thereby, as a rule, to wait for the hope deferred. There is no need here, it seems to us, to seek for a remedy. Let the qualifications for entrance to the profession be increased, and the matter will soon right itself, being as it is a simple matter of supply and demand. Ceylon, too, like India and unlike Burma, is suffering much from 'opposition' or 'adventure' schools, and the cause is mainly the same which exists in India. The missionaries have worked long and hard in the cause of education both in India and Ceylon, in Ceylon conspicuously so. But now that the people can appreciate gratuitously the advantages of education, they are desirous of taking the work out of the hands of the missionaries. Says the Director:—Given the element of 'permanence' to the new schools, the rivalry should be wholesome and inductive of progress in education, though it may involve for the time serious loss to the older school, and the disorganisation of school discipline in the locality. But when the opposition is on the whole factious and there is no prospect of permanence, it becomes a grave question as to how far Government is justified in holding out encouragement to such new schools, even with the fulfilment of Codd conditions. The difficulty of course is not individual to the Island.

Mr. Cull, the Director, will find the remedy adopted in the Madras Presidency worthy of imitation, viz., to strictly enforce rules for recognition. The capitation grant evidently causes some difficulty in the apportionment of Government money. The late inspector for the north of the Island says it encourages false registration, false personation, and the like; but we think the remedy he suggests of substituting absolutely the system of payment by results open to

still graver objections. It is a system which has been found wanting in England, being clearly detrimental to the best interests of true education. The Cambridge Local Examinations now form a most prominent feature in the secondary education system in Ceylon. The growth of the examination during the past eleven years has been remarkable. In 1880, 4 Seniors and 17 Juniors were presented; and no girls at all appeared. In 1891, 59 Seniors, 156 Juniors among the boys were presented; and 7 Seniors and 31 Juniors among the girls. Ceylon has now established its position as the second largest centre in the United Kingdom as regards these examinations. We agree with the Director that while there is no intention to hold up the Cambridge Local Examination as an ideal, the influence for good conditioned with its introduction into the Island cannot but be admitted. The London University Examinations are not so popular, but we note with pleasure that last year a student gained the first degree (in the first class) at the London University on the results of the examination held in the Colony. Unlike Madras, the report of the Ceylon School of agriculture is encouraging. The number of students under course of instruction is 26. The course embraces the subjects required for the Cambridge Local Examinations for Juniors, plus agriculture (theoretical and practical), botany, chemistry, veterinary science, &c. Manual labour in the field is insisted upon. A dairy is attached to the school, from which pure milk can be obtained, and the demand is constantly in excess of the supply. A stud bull has been imported from India with a view to the improvement of the breed of cattle. Forty acres of cinnamon land have been added to the grounds to make the extension of experimental planting of various kinds of grain possible. The extension of the dairy operations of the school is a matter deserving of all encouragement. "Most residents in Colombo are aware of the difficulty of obtaining pure milk. All the milk sent forth from the dairy is bottled and sealed, and so its purity is guaranteed. The enterprise owes its existence to the energy of Mr. Jayewardene, one of the masters of the school, without any material assistance from Government, save the permission to occupy the ground; and he has made it a paying concern. It becomes a question of importance whether it might not be both prudent and profitable on the part of Government to take over the enterprise

as a going concern in the interests of the various Government institutions and of the city generally. There could hardly fail to be a large and constant demand from the various hospitals and asylums. The military have already applied for a daily supply, which could not be guaranteed them. When once widely known that the possibilities of obtaining pure milk existed, the general public would almost inevitably prefer to obtain their supplies from unadulterated sources than to trust to the suspicious mixtures of the ordinary peripatetic milkman." The leaflets issued by the School of Agriculture are obtaining an increased sale. Two features of the report remain to be mentioned, viz., an extremely interesting account of the group of islands which lie to the north of Ceylon; and a large educational chart of the Island illustrating the position of education in the several revenue districts of the various provinces. The average attendance of school-going children throughout Ceylon is 5.1—a highly creditable result, seeing that the return for such a highly educated country as Scotland is a little under 14 per cent.

RECENT NATIVE DRAMATIC PERFORMANCES.

Most people will admit the many advantages to native students which must result from creditable dramatic performances. It is an education to commit to memory noble passages from Shakspear and to interpret them correctly to an audience. Many have thought that native students are incapable of this; but recent performances throughout the country have conclusively proved that such is not the case provided the students have the advantage of careful and intelligent coaching from Englishmen. Where that coaching is absent the result cannot be said to be satisfactory, as instance the performance of the Merchant of Venice lately given in the Victoria Hall, Madras, by an amateur company composed, we believe, of graduate teachers. It had always seemed to us that native students with efficient instruction would make very creditable actors—far better than average Englishmen. Natives of this country in the gesticulation and appropriate action that accompany their talk resemble Frenchmen in a peculiar degree; but they often fail ludicrously to give the same appropriate gesticulation and action when endeavouring to interpret the words of an English author; to say nothing of incorrect intonation and emphasis. The recent perform-

ances at Calcutta, Kumbakonam and Saidapet, however, show that the native student is an apt and willing pupil if properly directed. He is anxious to be instructed, and accepts both reproof and banter as no English amateur would. If directed by an Englishman, there is no prospect of a native amateur dramatic society splitting on the rock which is so fatal to Societies composed of Englishmen.

The performances to which we have referred took place respectively at Kumbakonam College; at the Teachers' College, Saidapet; and at the Presidency College, Calcutta. At Kumbakonam, Shakspeare's *Midsummer Night's Dream* was performed in a way which did credit to all concerned. At the Teachers' College, Saidapet, the students gave the trial scene from the '*Merchant of Venice*' and certain scenes from '*Coriolanus*'; the performance came as a pleasant surprise to those who witnessed it. At the Presidency College, Calcutta, the students performed the trial scene from the '*Merchant of Venice*' and certain scenes from *Julius Cæsar*. We quote the remarks on the latter performance made by Sir Charles Elliott, the Lieutenant-Governor,—

He thought that the verdict of those who had seen good acting at home and the acting of boys in school without much preparation would be that the boys who had acted that afternoon had acquitted themselves decidedly well. Some of them were decidedly gifted with considerable dramatic powers, and would succeed in any part allotted to them. All of them understood their parts, and felt what they were saying; and he was sure that taking part in these performances would conduce to their improvement. His Honor was exceedingly grateful to Mr. Griffiths for allowing this performance to take place, and he had especially to give his thanks to Mr. Wilson, who had thrown himself into this project with the utmost energy and interest. He had also to thank Messrs. Rowe and Stack for having kindly assisted in the preparation of what had proved so successful a performance; and now he would only say that he trusted that this would be an annually recurring occasion for this College, and that it would correspond with the days on which in English Universities and schools performances took place in which the old boys who had passed out took an active interest. He trusted that in future they would have not only dramatic performances but also something corresponding with the speech day at home—the recitation of successful literary efforts on the part of the boys. His Honor proposed to give a gold medal for the best oration which shall be prepared by any boy in the College. The subject would be given out by the Principal, probably three or four subjects would be given out, and the boys would have to write and send in their writing to the Principal, and those who were chosen would have to come forward and recite their address or essay. He hoped that similar prizes might be given by others interested in the institution for Arabic or Sanskrit prose or poetry.

A WORTHY INSTITUTION

What with G.O.s, if not exactly captious, at any rate tedious and dogmatic; what with Press protests, energetic, forcible and totally Philistine; what with being subjected in part to the crude criticism of youth, academic, untempered, we fear that what should be the natural and proper heading to this notice would serve only to divert attention instead of drawing it to the Lawrence Asylum at Ootacamund. Every subject and object presents different aspects. Government looks at the Asylum in the light of a large outlay on buildings and establishment paying nothing, costing much. Its practical mind shudders at its own former capacity for imagination, at its old idea of pastoral colonization of this beautiful land. Again to the Madras trading public Lawrence Asylum spells "*Pestilent Printing Press*." While thirdly again, the academic critic is of opinion that on the application of the formulæ of applied mechanics to the strength of its boots and shoes these will be found wanting. It is not of any of such things that we propose now to deal. We wish, however crudely and briefly, to describe a short and quite occasional visit to this excellent institution, and if possible to obtain more favourable consideration, if even in the slightest degree, for an Institution which under its now capable management satisfactorily shelters and educates some 330 boys and nearly 70 girls who otherwise would probably become outcasts.

It is a beautiful morning in June—as we ride through Lovedale we thank the birds for their song sustained so late this season. We feel grateful for the shifting lights on the sholas. A hare starts up at our feet, a cloud lifts over a distant hill; we feel how glorious it all is. Arrived at the Asylum we are heartily greeted and our wish to be taken over all the buildings is readily and most kindly acceded to, considering that we have no claim whatever on the time and to the attention of our host. We are first shown into the large dining hall where the tables are set for the 300 odd boys. The service is simple enamel and tin, but all scrupulously clean. At one end we notice an organ with a lectern, and arrangements for service of another kind, and on remarking this we are told that proposals for the reserving of this room (there is no chapel) for Divine service only have not yet been completed, but that this is

one of the chief objects in view. From the dining hall running parallel to and opening out on a long passage or enclosed verandah is the large dormitory. This is a very fine room. It contains between 90 and 100 small iron bedsteads without any packing or crowding. It is well ventilated, there is not a mark of any disorder, and thorough supervision and control are visible everywhere. The usual objections to large dormitories are here met by careful watch and systematic attention and discipline. We were next taken through several smaller dormitories each with from 30 to 40 beds and all showing the same care and attention. So far as is possible even the aesthetics are not being lost sight of, and in all small details there is a tendency to brighten up and to make things look cheerful. We would mention while on this point that attempts are being made to render a little more smart the boy's costumes which at present seem to tend almost to unnecessary dinginess. From the dormitories we passed on to the Class rooms on the ground-floor and to the covered and open play-grounds. The boys are not confined to these however, they merely constitute the "home paddocks" if we may use such a term, and the whole estate of 800 odd acres forms the play-ground, or exercise-ground as the case may be. Many of your readers know the situation well, many have not seen it at all, and we would venture to state that but few have realized what a beautiful spot it is, what an effect the surroundings of this unassuming and humble *Alma Mater* may have on the more reflecting of her children. We know of a spot at home where the water woos the meads shadowed by the wooded hill, and Science rears her head above, and instructs. Denham sang of it, but he had a finer subject here, at our Asylum. From this digression we are recalled to the practical by coming upon the workshops. Instruction in carpentry, blacksmiths' work, boot and shoe-making, tailoring, etc., is given here. There is also a room set aside for the Band Instructor and his class. The Gymnasium is being extended and remodelled and much improved, and if well fitted up will be a very fine one. Instead of trying to dispose of the large sawing machine which is lying useless here with its engine, why does not Government set it up at Ootacamund or Coonoor where it might not only perhaps be made to pay directly, but would in any case serve to bring many of the boys in actual contact with work to be done for real and practical purposes, and give them a chance of learning

what "competition" and a "market" mean, and what they will be required to do in after-life. The instruction and education the young artisans have been acquiring in the new High Courts at Madras are what are wanted with regard to the industries practised here. After a short course of teaching the boys should be put on to real work. There would be many difficulties no doubt, but this is the only proper way of making use of the splendid material available. We apologize for the crudity of these remarks. They are due to our chief impression; What repression! What comparatively few results! On the other hand, What a splendid Institution the place might be worked up into.

The quarters for the girls are situated at some little distance from the main building. As would be expected, the amenities are more attended to, and everywhere are signs of cleanliness, comfort and almost of elegance. Attention is being paid to all details here too. The work is all done by the girls themselves. The boys often seem to find time hang somewhat heavily, as boys will when not bent on their own pursuits, and in contrast it is a pretty sight to see these robust maidens and little children playing and romping and swinging in their Red Riding Hood caps. Indoors too at their work, whether in the kitchen or in the sitting rooms and dormitories they seem so fresh and strong as in their faces to reflect the health and happiness of their surroundings. It seems almost cruel to allow them to go down to the Plains for their holidays. As an Institution for girls there is, we think, more completeness than is the case with regard to the boys, in the fact that they do here the very practical work which must be theirs hereafter.

Such is a brief description of the Asylum as seen in its everyday life, and we take leave of it with thoughts of the exalted personality of the man to whom his comrades have given honor and respect in this and its kindred Institutions.

DON QUIXOTE.

BOOKS AND READING.

(With special reference to Indian Students)

There is one charge brought against Indian students in general to which I fear we must plead guilty, and that is that during their scholastic career they do not cultivate manly habits of thinking and reading. A very large proportion of educated Hindus are not given to reading. The knowledge of English literature they possess is chiefly confined to the text-books they happen to read for their examinations. When I speak of reading I mean of course the reading of English books. Macaulay said that a single shelf of a good European library was worth the whole native literature of India and Arabic. This is probably an exaggeration, one of those exaggerations characteristic of Macaulay, but there cannot be any doubt of the intrinsic superiority of English over Oriental literature. I for one look upon a knowledge of English as the most valuable of our acquisitions, though, I fear, that this gain has not been without its corresponding loss,—loss of energy, loss of creative power, loss of originality. Our acquisitive powers have been tasked to the utmost in acquiring this most difficult foreign language; no wonder that our creative faculties have suffered in consequence. But we need not grumble. We have already gained a great deal by our acquisition of English, and when future generations of the Indian races, become through the influence of hereditary transmission naturalized to the English language, our gain will be still greater. The English language enables us to be in touch with modern thought. It “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.” In fact the English language gives us access to all the vast intellectual wealth which the wisest nations of earth have created and hoarded in times past. And yet how very meagre is the advantage we have taken of our opportunities!

“If,” says Sir John Herschell, “I were to pray for a taste which should stand me in stead under every variety of circumstances, and be a source of happiness and cheerfulness to me through life, and a shield against its ills, however things might go amiss and the world frown upon me, it would be a taste for reading. I speak of it of course only as a worldly advantage, and not in the slightest degree as superseding or derogating from the higher office and surer and stronger panoply

16

of religious principles—but as a taste, an instrument, and a mode of pleasurable gratification. Give a man this taste and the means of gratifying it, and you can hardly fail of making a happy man, unless, indeed, you put into his hands a most perverse selection of books.”

It is this taste that needs to be developed in every Indian student, and the fact that so few of our students acquire a real love of reading does not reflect credit on the system of education they receive. I am not drawing on my own imagination when I say that a very large majority of our students leave College without acquiring manly habits of reading and thinking. The reason is not far to seek. So long as the sole attention of our students is directed to the mere passing of examinations, their interest cannot but be confined to mere text-books. It is therefore of the utmost importance that our students during their College career should have the opportunity of acquiring general culture and wide intellectual tastes. Anything, therefore, that draws their attention away from text-books and the narrow groove of examinations must be highly encouraged.

An important part of the academic training of English University students is performed by debating and other societies under the direction of students. These societies afford a stimulus to intellectual adventure and thus promote a wide culture, they encourage freedom of utterance and a free interchange of ideas and thoughts, and they teach the lessons of self-correction, self-proving and self-estimate which are so very essential to every educated youth. And here in India such societies have an additional advantage in promoting social intercourse and union among cliques and castes that have so little in common with one another.

I have said that it is of the utmost importance that our students should cultivate the habit of reading, but they should take care to cultivate the habit of reading wisely. We suffer in these days from an excess of opportunities, and we should therefore have the nerve to reject. “Books have brought some men to knowledge and some men to madness,” says an old writer. Now that we are flooded with cheap publications of all kinds, there is a danger of wasting our time in “the poisonous inhalations of mere literary garbage and bad men’s worst thoughts.” The silly productions of Reynolds seem to be in great favour with educated Hindus. I remember meeting at the house of a European friend a Hindu gentleman, one holding a very high position in one of the Native States. The conversation turned on English novels and on the comparative merits of Dickens and Thackeray as novel writers. Our Hindu friend was asked to give his opinion by the lady of the house, and he said; “I don’t know anything about Dickens or Thackeray, but I have read every one of Reynolds’ novels, and I believe he is

superior to either of them as an artist." I fear very much that the majority of educated Hindus know more of Reynolds' writing, than those of Dickens or Thackeray or George Eliot. To be addicted to the reading of such books as those of Reynolds, which chronicle filth and putrescence and corruption, however diabolically ingenious they may be, is a positive vice. "The intellectual system of most of us in these days needs 'to purge and live clearly'" says Frederick Harrison, and the statement is applicable with greater force to India. Our young students should feed the mind with the solid food of thought that men of genius have written, and not with the unsatisfying husks of literature—novels without merit and poems without elevating ideas. To become familiar with classical works of genius, to feed on their beauties, to enter into their spirit will have a most beneficial influence upon the mind and life. A familiarity with the works of genius improves, when those works are good and great; we behold a higher standard placed before us; though we cannot attain to it, yet is our ambition excited to endeavour to excel, for it is the privilege and prerogative of man to be influenced by high ideals.

And books we know,
Are a substantial world, both pure and good;
Round these with tendrils, strong as flesh and blood,
Our pastime and our happiness will grow.

Let there be therefore a rational choice of books. Every student should possess a library of works selected by an able and judicious guide. The selection of books suited to Indian readers is by no means an easy task. The subject of Books and Reading was raised a few years ago in England. Lord Iddesleigh began the subject by his admirable discourse on "Desultory Reading" delivered to the students of Edinburgh University. Sir John Lubbock followed it up with his lecture on "The Choice of Books" at the Working Men's College, in which he enumerated a hundred of the books "most frequently mentioned with approval by those who have referred directly or indirectly to the pleasures of reading." Next the Rt. Hon. G. J. Goschen delivered an address on "Hearing, Reading and Thinking" to the students of the London Society for the Extension of University Teaching, and then Mr. Frederick Harrison brought out his admirable little work containing his essay on "The Choice of Books and other Literary Essays." The newspapers also took up the subject and the columns of the *Pall Mall* were filled with lists of books suggested by eminent men for general reading. Indian students will find much help in the selection of the right class of books for general reading in the publications referred to above. I would also here refer to some older publications that are likely to be of

help, viz., Emerson's *Essay on Books*, Charles Lamb's *Detached Thoughts on Books and Reading*, and Isaac Disraeli's *Curiosities of Literature and Literary Character*. The lists of books, however, given by Harrison and Lubbock and others are intended specially for English readers. It is therefore to be wished that some competent persons in India would undertake to do for Indian readers what Lubbock, Harrison and others have done for English readers. It would be presumptuous on my part to undertake such a bold task, for which I am not competent, but I think it would not be out of place for me to give a few general hints as to the sort of books that should be the incessant companions of Indian students, for the great landmarks of English literature are well defined and unmistakeable to him who has eyes to see and a mind to comprehend.

Our ignorance of the classical languages of the West is a great drawback, for we have no access to the works of great Greek and Latin authors, a general conception of whose writings is considered to be an indispensable condition of rational education in England; but there are excellent translations of them in English, which are themselves masterpieces of English literature. The Indian student should be acquainted in a general way with the best translations of Homer's *Iliad*, of Plato's *Republic* and of Virgil. He should have an idea of the best orations of Demosthenes—the *De Corona* for instance, which Lord Brougham pronounced the greatest oration of the greatest of orators. Aristotle's writings are no doubt valuable, and we have some good translations of them, but they are too technical to interest the general reader.

Sir John Lubbock rightly places at the head of his list the Bible, which, though a translation, is one of the grandest literary productions in any language. Speaking of translations I should not fail to mention Goethe's *Faust* and Dante's *Divina Commedia*, both of which must be read. The English language abounds with theological and devotional works of rare merit, but all that are of interest to the English reader cannot be expected to be of interest to the Indian reader, as for example the works of the Fathers; but books such as Butler's *Analogy of Religion*, Taylor's *Holy Living and Dying*, Bunyan's *Pilgrim's Progress*, and Keble's *Christian Year* should be read by every lover of English literature. The English language is rich in poetry, and it is poetry that rouses the imagination, stirs up feeling and touches the heart. The position of the greatest English poets is well established and clearly understood, and every student of English literature should read and, if possible, study the masterpieces of Chaucer, Shakespeare, Milton, Spenser, Dryden, Scott, Wordsworth, Pope, Shelley, Keats, Burns, Coleridge, Byron, Gray, and last but not least Tennyson, who also has definitely entered the immortal group of English poets.

In the selection of works of fiction the greatest care should be bestowed, for it is this department of literature that is so prolific in these days. Scott, Thackeray, Dickens and George Eliot stand unrivalled among English novelists. Scott's novels are rather popular with Indian students and to have read all of Scott's novels is a liberal education in itself, but Dickens and Thackeray are not read widely for the simple reason that an intimate acquaintance with English life is necessary to understand their writings thoroughly. The artificial barrier that separates Europeans from natives of India renders it all the more necessary that the latter should have a fair idea of the bright side of English social and domestic life, for I fear that many of our countrymen who read nothing but Reynolds's works are under the impression that the manners and morals depicted in them are those in vogue in English society. Fielding is considered to be one of the best novel writers, but his *Tom Jones* though "most rich in life and the most artistic in construction" is not of an elevating nature morally. The works of Miss Edgeworth and Miss Austin hold a permanent place in English literature. The immortal *Vicar of Wakefield*, of course, must be read. Lytton's novels, I know, are popular with Indian readers owing to their leaning towards Oriental mysticism, but I believe his works are of only second rate importance. In some of Kingsley's novels, as for example, *Westward Ho!*, there will be found much that is elevating.

Coming to books of simple enjoyment I should not fail to mention Swift's *Gulliver's Travels*, Defoe's *Robinson Crusoe* and Cervantes's *Don Quixote*. It is a mistake to suppose that these books are only suited for boys. *Gulliver's Travels* and *Robinson Crusoe* are not mere fairy tales, but are really works on social philosophy and contain inexhaustible teachings for the student of man, neither is *Don Quixote* a mere collection of buffooneries, it has been well called "the serio-comic analogue of Dante's *Vision*." Dickens's *Pickwick Papers* is not very popular with Indian readers. In order to appreciate *Pickwick*, Sam Weller's character must be appreciated, but to an Oriental his character is the greatest puzzle. The *Arabian Nights* of course every one reads and every one enjoys. It is noteworthy that in Sir John Lubbock's list Boccaccio's *Decameron* is omitted. It is the fashion I know to laud this work to the skies, but with the exception of a single story, that of Griselda, there seems to be nothing striking in the work, though it contains much that is morally vitiating. Of essay writers Bacon, Hume, Macaulay, Addison, Emerson, Burke, DeQuincey, Carlyle, Newman, Smiles, Blackie, may be mentioned. Macaulay is deservedly very popular with Indian readers and very many I know try to imitate his style of writing.

The works of Carlyle, especially his *Sartor Resartus* and his *Heroes and Hero-Worship*, are fascinating to Indian readers, for his was essentially an oriental mind. Newman's writings are also beginning to be popular. Newman has wielded English prose with the same finishing grace as Tennyson has wielded English poetry.

Books descriptive of English student life should be read by our students, such as *Tom Brown's School Days*, *Tom Brown at Oxford*. Books of travel are increasing in number and we have a splendid collection to select from. I may mention here just a few—Cook's *Voyages*, Darwin's *Naturalist's Voyage*, Stanley's *Through the Dark Continent*, &c. The study of biography should be specially encouraged among our students. Books such as Johnson's *Lives of the Poets* (edited by M. Arnold), Mill's *Autobiography*, *The Life of Charles Kingsley*, Stanley's *Life of Thomas Arnold*, Froude's *Life of Carlyle*, &c, will give an insight into the influences that have been at work in moulding the lives of some of the greatest men that Great Britain has produced.

I have confined my attention chiefly to general literature and have excluded books bearing on History, Philosophy, &c., and other subjects which are more or less of a technical nature; but my list is anything but perfect. My only object in suggesting this list is to stimulate others more competent than myself to prepare such lists for Indian students. Let it also be remembered that our knowledge of English opens out to us American literature which is developing rapidly. It is a matter, however, worthy of note that up to the beginning of the present century very little literary work of a high class of merit had been performed by American writers and the great writers of America can be counted at one's finger ends, for when I have mentioned the names of Irving, Prescott, Bancroft and Motley in history, Emerson and Edwards in philosophy, Hawthorne, Cooper, Holmes and James in fiction, Bryant, Longfellow, Poe, Lowell and Whittier in poetry, I have exhausted all the meritorious authors of America. This fact should be borne in mind by critics such as Sir Lepel Griffin and others who say that the Indian, like the Greek intellect, has grown old and decayed and has lost its creative power and that there is, therefore, no use in applying European manners.

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INDIA IN SEARCH OF AN IDEAL UNIVERSITY.*

The wave of educational agitation which is sweeping the face of the globe has caught up India in its course, and has left her much dissatisfied with a university system which she seems inclined to blame as the chief cause for the barren intellectual results of the past thirty years and more. That she has taken a diagnosis of what she considers her disease is really a cause for rejoicing, for there is no state so alarming and hopeless as that in which the patient views his constitution with self-satisfaction and complacency.

India is not the only country which views with restless attitude the great problem of how best to obtain that ideal of education which shall fit its recipients to take their place in the world with the greatest possible credit both to themselves and to the community at large. No country seems to be completely satisfied with its educational system, least of all England where a complete transformation has been taking place during the last twenty years—a remarkable period, indeed! which has seen Germany still further developing and perfecting that almost complete scheme of education which enabled her slowly to rise from the political debasement brought about by a foe over whom she at last completely triumphed. France took her defeat well and is now ostentatiously copying the educational system which was the means of her rival's triumph. In fact, the last few years have been marked by a remarkable educational activity in all quarters of the globe that has no parallel in the world's history. Foreign systems of education are being discussed in detail, and there is a tendency in some countries to see their ideal of education in countries and systems other than their own. But it would be well to remember, that an ideal of education does not exist, if by such an ideal is meant a system perfectly adapted for one and all. Just as the ideal education of the individual would be that which was based upon the idiosyncracies of the latter, so each and every national system of education must of necessity be adapted to the needs, the associations and circumstances of the individual country. India seems inclined to set out on her travels in search of such an ideal; and if asked in the end what she is looking for, she will be obliged to confess her failure with the same cynical incisiveness that characterised the answer of the philosopher Diogenes—who, when asked what he was looking for with his lantern in the broad daylight, answered "I am looking for an honest man." No! To imagine that in other systems lies our hope, is as absurd as to imagine

* Paper read by Mr. T. Denham, M.A., Vice-Principal, Teachers' College, Saidapet, at the Annual Meeting of the Presidency College, Literary Society, the Rev. Dr. Miller, C.I.E., being in the chair.

19

that pupils of different ages, attainments and capacities may be trained and educated in one and the same manner with equal advantage to all. Each country will solve the great problem the sooner and more completely only when it makes due allowance for its history, its associations, and peculiarities of national temperament. But holding such an opinion should not prevent us from taking up the interesting and instructive task of enquiring into the working of the more prominent educational systems in existence, and, to us in particular, the working of the most prominent types of university systems. Although we shall find that no system is without its defects, we shall see some features which we cannot but approve, and which, as far as possible, we should appropriate. Time will not allow of details, and some conclusions may be drawn which may possibly seem a little too pronounced and dogmatic. This can scarcely be avoided under the circumstances.

In such a survey England naturally comes first; for not only did that country give to India the basis of her existing university system, but she herself possesses a system which is almost unique among university types. But before proceeding to discuss what is known as the 'collegiate system' a few words must be said in reference to the London University—a university which served as a guide to those who formerly initiated our Indian University system. Half a century ago that university was started as a protest against the religious exclusiveness of the older universities of Oxford and Cambridge and the monopoly which they enjoyed of being the so-called national centres of learning. It necessarily lacked the historic associations of its rivals, but it lacked also and alas! what up to that time had been considered the essential part of a university, viz., provision for teaching. In the mediæval universities the teacher was perforce the most prominent feature in the system. Books did not exist, and manuscripts were beyond the means of most students. The London University by its constitution symbolises the mighty change which has taken place in the increased means for the diffusion of knowledge. With her the teacher is nothing, the book everything. She is willing to examine and set her hallmark on any, irrespective of age, sex, religion, clime, or mode of training. But let us not be slow to acknowledge, now that it is the fashion to discredit this institution, the signal service London University has rendered to the cause of education. She has broken down the hitherto insurmountable wall which surrounded the older universities of England, and which effectually shut off the advantages of a university degree to any but the affluent and well nurtured; she has enabled many a poor, able, and deserving teacher to take a degree at the lowest possible cost, and to read for that degree while engaged in the profession of teaching; she has set up an unofficial

standard of efficiency for teachers of middle class schools, a class of schools hitherto strangely neglected in a country in which the middle classes form the marrow of the nation; she has directed and stimulated private reading among needy students in a way which some few, very few be it said, out here in India, would like to see emulated by our Indian universities in allowing private students to appear without let or hindrance for the various university examinations. The faults of a system which tests education solely by examinations; which, until quite recently, made it possible for a student to pass with honours in science with nothing but a book-knowledge of the subject; which takes no account of the moral education of its *alumni*; which ignores the stimulating and generous influence of the teacher; which requires a superficial knowledge of many subjects rather than a special knowledge of one; such faults are obvious. The Indian universities showed their wisdom by adopting the system with the provision that no student should, as a rule, be examined unless he had studied for a definite period at some one of the many affiliated colleges throughout the country. The tendency is, fortunately, to insist more than ever on this condition being fulfilled, in spite of the opinion of those who think that the teaching throughout the country would be improved if this condition were removed. This is an opinion which cannot be shared by those who know much of the character and working of the 'Adventure' schools. London, herself, has at last expressed her dissatisfaction with her present university, and desires she may have a *bona fide* teaching university—a university worthy of the metropolis of the British Empire. The experiment cannot but be watched by India with the closest interest, as possibly some scheme may be evolved by which the various teaching institutions in London may be so co-ordinated as to afford an instructive lesson in university reform to this country.

Although the first place in this paper is given to a consideration of the merits and demerits of the London University system, the system with which the name of England is peculiarly associated is that embodied in the older universities of Oxford and Cambridge. These latter are characterised by what is known as the collegiate system, a system whereby numbers of halls of residence, or colleges, have sprung up from time to time around the university itself, and have usurped the first place in the constitution of the university. They have naturally offered peculiar facilities for the growth of that body of associations which is now their peculiar inheritance. They, and the universities of which they form part, attract to themselves the eyes of the civilised world. They, like the English constitution, are the outgrowth of ages

characteristic of the people and, like that constitution, cannot be formally imitated. Their origin is lost in the distance of a misty past; a halo of sanctity surrounds and permeates their time-worn buildings; the saint, the philosopher, the scholar, the soldier, men who have carved their names in imperishable letters in the history of their country and of the world have lived within their walls, and have filled each corner and nook with some lasting memorial or tradition of their sojourn there. Even the most hardened utilitarian of this most utilitarian age stands with awe, beneath their halls, and acknowledges the subtle, undefinable influence which such buildings and such associations must have on the minds of their *alumni*. There are some things which Oxford and Cambridge can offer for imitation, and some which they, as certainly cannot offer. Unlike the birthright of Esau, their birthright of rich historic associations, eaten as it were into the oak panellings and walls of their colleges, their halls, their chapels, are the inalienable birthright of the nation, and cannot be dissociated from the objects which embody them. No the best which Oxford and Cambridge have to offer is that which the universities have the least power to dispose of. The richly stored libraries with their priceless treasures; the stately Gothic chapels of whose influence England's greatest epic poet thus wrote:

But let my due feet never fail
To walk the studious cloister's pale
And love the high-embowed roof,
With antique pillars massy proof,
And storied windows richly light,
Casting a dim religious light:
There let the pealing organ blow,
To the full-voiced choir below,
In service high and anthems clear,
As may with sweetness, through mine ear,
Dissolve me into ecstasies,
And bring all heaven before mine eyes.

—the college halls lined with portraits of college worthies, who in their day had chatted and refreshed themselves as pleasantly as do those who now sit in their once accustomed places; the university church in which the voices of England's greatest preachers have re-echoed; the matchless green lawns, the shady walks hallowed by the feet of England's noblest sons; none of these things has a purchasing power. They are indissolubly bound up in the history of the country. They represent all that is best in the national character, its piety, its generosity, its learning; they represent the development and growth of the country's history. Most of us know the answer given by the Oxford College

gardener to the American visitor who imagined that money could purchase all things, and who exclaimed out on seeing the close-cut, green, velvety lawn of one of the colleges:—"Well stranger I guess you have got a better lawn than I have. I have spent many a dollar on mine, but you have got the better lawn. How do you manage to do it?" The gardener, with all the quiet dignity that an Oxford subordinate can assume when representing his college, replied, "When you have prepared the ground, sown the seed, and day after day kept your lawn in order for four hundred years then, if you are fortunate, you may expect as good a lawn as this." The story points its own moral.

It is very difficult to say what is the exact part which these buildings and their associations play in the education of the students. They have been called the accidents and not the essentials of a university; but, as a matter of fact, so subtle is their stimulating influence that it would be very difficult to say whether they are not the essentials in the case of Oxford and Cambridge. At any rate, the universities themselves are evidently inclined to view them as essentials; for, in their endeavour to become once more the national centres of learning, they annually locate for a few weeks of the Summer Vacation a large number of those poorer students who have attended the University Extension lectures in the provinces. Not only do the Delegates believe in the efficacy of peripatetic university teaching, but they believe that the silent influences of Oxford itself should also play their part as a potent teaching factor. The intellectual, moral, and social advantages of the collegiate system, including as it does, the tutorial system, are many. Even a few German educationists—men, who as a class, believe they have very little to learn from other countries—acknowledge its merits, and are in favour of adopting the system tentatively, and on a small scale, in some German universities. The introduction of the system into India, even if desirable, would be fraught with many difficulties in a country where such rigid distinctions of race, language, religion, and caste exist, and where many students are married men. How much, however, can be effected in this direction is evidenced by what our revered Chairman has seen possible to accomplish after his unique experience of Indian people, in the Students' Homes erected in connection with the Christian College.

And now a few words as regards the intellectual work of these universities. Mr. Gladstone in his recent address at Oxford, on medieval universities in referring to the two sister universities of Oxford and Cambridge, remarked:—"The chief dangers before them are probably two—one, that in research, considered as apart from their teaching office, they should relax and consequently dwindle; the other, that under pressure from without they should lean, if ever so little, to that theory of education

which would have it to construct machines of so many horse-power, rather than to form characters, to rear into true excellence that marvellous creature we call man, which glories upon success in life instead of studying to secure that the man shall always be greater than his work, and never bounded by it, but that his eye shall boldly run, in the words of Wordsworth, 'Along the line of limitless desires.' There can be no doubt that Mr. Gladstone in these words has indicated the real dangers which threaten the older universities of England. As regards research these richly endowed universities possess plenty of material for fulfilling this highly important function of a university. But in spite of the outlay, little is accomplished compared with what the more poorly endowed universities of Scotland and Germany achieve. The Professors at Oxford, the men who are real specialists in their subjects, have little or nothing to do as compared with the corresponding class in Scotland and on the Continent. Of the Professors at Oxford, 14 of them with a total income of nearly £8,500 a year, lecture to an aggregate of students considerably under a hundred. Students will not attend their lectures because these lectures are on subjects which do not 'pay' in the examinations. The Commissioners who recently wrought many changes at the universities re-constructed the scheme of Fellowships; but in their anxiety to do away with the abuse of idle Fellows, increased the number of idle Professors. The idea of awarding Fellowships to a few select and superior men to enable them to continue their special studies is a good one; but sufficient guarantees should be given that such studies shall be pursued, and that these fellowships shall be awarded to the most deserving men—but such guarantees are not always given, and until secondary education in England is made, as in other countries, the concern of the State, these and other abuses will exist. The professoriate at these universities lacks organisation, the professors not even being divided according to faculties. The teaching, except in a few branches, is not of that high character which should distinguish a university. What are the true functions of a university, are debateable points; but if universities are, as Doctor Döllinger asserts, 'corporations devoted to the advancement of the kingdom of knowledge by means of investigation and productivity,' then Oxford and Cambridge leave much to be desired.

But Oxford and Cambridge, in spite of what critics may say, do perform many of the true functions of universities. They have still their great teachers and thinkers whose names are famous throughout the world—many of their younger Fellows are bringing much intellectual vigour into their college and literary work; the discredited tutor is still, in many cases, a direct means of stimulating and inspiring his pupils; and, as Mr.

Gladstone has just pointed out, the fact that Oxford has supplied so many cabinet ministers, is proof of the existence of "specially strong efforts in Oxford towards the exigencies of public life." He might have added, as proof of the same efforts, the exceptionally large number of university men who appear in the present Parliament.

But our reference to the university systems of England would not be complete if we were to leave unnoticed the remarkable growth of provincial universities in the last few years. The establishment of these universities in busy industrial centres is a recognition of the principle that higher education is not the monopoly of the higher classes, and that it must be brought to the doors of those who cannot afford the luxury of residing at Oxford or Cambridge. Accordingly at the lowest possible cost good teaching is offered at these affiliated provincial colleges. That they are partly supported by the State is the recognition of the important principle that the State's duty does not rest with elementary education. This is a remarkable admission for the English Government to make. The principle has been long recognised in India, a country which might well put England to shame for its comparatively well-organised educational system. Too much importance cannot be laid on the principle of the duty of the State in this direction, now that the Government policy in India seems to be to let secondary education look after its own interests more and more.

Let us now turn our steps to the sister country which lies across the border. Scotland, unlike Oxford and Cambridge has, with the exception of St. Andrew's, no retired spots of learning. Her practical common sense and forethought seemed to be expressed in the fact that her three great universities of Edinburgh, Glasgow and Aberdeen are situated at seats of population and industry. The practical character of the Scotch, too, is seen in the very definite object they have in view in their university system. At the least possible cost they seek to give their youth the best education that will fit them for the learned professions. Their system is far more highly organised than that of England, approximating very closely to the German system; but, owing to peculiar circumstances, the Scotch universities resemble public schools far more so than do Oxford and Cambridge. Owing possibly to the comparative scarcity of good public schools, the Scotch youth go to the universities at too early an age to profit much by university teaching, fifteen and sixteen being by no means an unusual age for boys to enter. In the lecture or class room they are subjected to a school-like discipline, and when the morning's classes are over, they return to their parents' homes or to any of the numerous lodgings scattered throughout

the town. The Scotch student, unlike the Oxford or Cambridge undergraduate, does not come under the wholesome and inspiring influence of a tutor; comparatively few of the moral influences of the English universities surround him; while opportunities for social intercourse are few. An university career is open almost to the very poorest student in Scotland, owing to the excellence of the parish schools in which the rudiments of Latin, Greek and Euclid are taught; and many a poor student turns to work of some kind during 'terms' in order to enable him to procure a living. In the lecture room the Scotch student mixes with students of all ranks; and thus the universities are great democratic institutions in which a great deal of wholesome levelling takes place, and in which, owing to the application of the principle of 'self help,' a still further development takes place in the sturdy, manly and self-reliant character of the Scotch student—but the strain, both mentally and physically, must sometimes be very severe. But although, (considering their comparatively poor endowment) the Scotch universities have a distinctly creditable literary output, and although in the Faculty of Medicine, Edinburgh has gained a world-wide reputation, it must be remembered that university reform is much discussed in Scotland. It is a fact that many rich young Scotchmen are sent to the large public schools of England and afterwards to the English universities, and that not a few of these have become famous men. It must be remembered, too, that not a few Scotchmen supplement their Scotch university course by specialising at one of the German universities. The Scotch universities are too poorly endowed to afford inducements for research and to offer facility for the best science teaching; while the general teaching addressed to boys who give no, or only a slender, guarantee of their fitness to profit by a university course, and yet proceed to their M.A. degree after three or four years, must at times be necessarily below a university standard.

From Scotland we turn naturally to Germany—for the Scotch and German university systems have much in common. The German Fatherland is peculiarly the land of universities,—universities which modelled on the University at Prague (interesting to India on account of its being the first university formally founded), have been continually springing into existence from the fourteenth century to the present. They differ from the mediæval type of university chiefly in the direct action of the State in their Government, and they differ from Oxford and Cambridge in knowing nothing of the collegiate system. Many are the stories and traditions which have been associated with the poor German student setting out from home almost penniless to seek knowledge at one of the

many of the universities, of his adventures and hardships, of his free and happy life enlivened with song and wine and much beer, of the universal respect which has always been paid by all classes to the poorer German students, of the ready avenue which his degree affords to the learned professions and State employment. The educational system of Germany is the most complete in the world. From the primary school to the university no detail in Government of the various institutions is too unimportant for the consideration of the Government. The university in Germany is a university in fact as well as in name. In it every provision is made for efficient instruction, and every facility is offered for research and original work. The professors hold positions which are objects of ambition to every scholar, and their teaching is of a highly efficient nature and is subjected to a wholesome competition on the part of the assistant professors—successful young students who have taken their doctor's degree and who are authorised by the university to teach the same subjects as the professors. Examinations are by no means the test of teaching; in fact, as Matthew Arnold, who devoted much time and study to the subject, observed, "liberty for the teacher, liberty for the learner, knowledge systematically pursued and prized in and for itself, are the fundamental ideas of the German University system." If anything, too much liberty, at least to the student, prevails. Such is the opinion of some critics. Matthew Arnold, himself, admits that a large proportion of the students are idlers, a larger proportion than in England; a proportion, as some estimate, of one-third. This is due to the comparatively small part which examinations play in the University scheme, to the non-effective means of taking account of the student's attendance at lectures, and generally to the absolute liberty afforded by the university to the student outside the lecture-room. But the stubborn fact remains that, though some are professed idlers, and all enjoy unlicensed liberty, the standard of scholarship is high, and, as has been remarked, the literary output greater than that of any other country. Whether that output would be greater if the students' liberty were restricted and more examinations instituted, is to be doubted. As it is, Germany, in the liberty enjoyed at her universities by both professors and students and in the amount and quality of the work she produces, stands out in silent protest at the exaggerated importance which attaches to examinations in this country and in England. If means were taken to give a uniform standard to the examinations in the various universities so that a uniform value might be attached to all German degrees, and if the German student were a little less addicted to duelling and beer drinking, nothing but praise could be given to a University system which, take it all in all,

is perhaps the best in existence if we consider the nature of the teaching and the actual intellectual results.

Of the American universities little need be said as they are copies partly of the English and partly of the German type. Some of them, being founded at a time when England's sons sought in the far West the political and religious liberty denied them at home, were modelled on the collegiate system of Oxford and Cambridge, and make arrangements for lodging their students within the college walls. Others, and these are chiefly State-founded and State-aided universities, are modelled on the German system which, while insisting on the students' attendance at university lectures, exercises no further restraint over them. So-called universities exist all over the country numbering nearly four hundred in all. Of these, however, few have a right to the name of a university. Professor Bryce thinks that only a dozen have such a claim. Harvard and Yale rank highest. Beneath these come some thirty or forty which are universities in aspiration rather than in fact, while the three hundred and more below these have no claim whatsoever to the title of 'university'; yet they claim, and exercise with prodigality, the right to grant degrees to such an extent that the only remedy seems to lie in allowing the privilege of conferring degrees to only one university in each State. The American University system is doubtless weak, as is evidenced by the fact that over two hundred American students annually proceed to Europe for that specialised university instruction which is wanting in America. The post-graduate system, by which the graduate after taking his degree is enabled to do special work in the way of research and scientific investigation, is a system which is receiving increased attention in America, and is one which might with advantage be copied in England and elsewhere.

There is one common feature in all the types of universities we have discussed, except the London University. Differing as do these systems in many details, they one and all include residence, either in colleges or in lodgings in the town or city where the university is located. The university, whether of the Oxford and Cambridge type, or the Scotch and German type, is a university and not an abstraction. The university as distinct from the college, has a home of its own consisting of its various offices, its Senate House, its library, its common halls, its lecture halls, its church or chapel, and, as in the case of Oxford, its theatre. Other buildings arise, not officially connected with the university, which are used in common by undergraduates and graduates, such as the Union Society at Oxford. When a graduate or an undergraduate thinks of his university he thinks not only of his

particular college, (if he has one) but also of a body of university buildings which have for him an intense interest. Round these buildings hover the pleasantest and noblest associations; for these buildings he has used in common with other members of the university, some of whom have since become famous men in the world. He walks the same streets, uses the same rooms and buildings which have been hallowed by those who have passed away but left imperishable names behind them. He comes into contact with students from all parts of the country; his cherished prejudices are thrown to the winds when he is called to the unaccustomed task of defending them; he is stimulated to a great effort in the enlarged area of competition which a real university offers; the means for research, whether in the library or the laboratory, are such as no simple isolated college can command; and the teaching, for the same reason, is of the best. India's ideal of a university must be her own ideal, an ideal only if it is based on the needs and the peculiarities of the country; if it takes into account past associations and present circumstances; if it remembers the differences of race, language, caste, custom, religion, and means of those whom it wishes to benefit; if it remembers the peculiar bent of the Hindu mind which, though by no means wanting in natural ability, is now only just emancipating itself from centuries of thralldom. Each of the countries we have discussed has its own university ideal, which embodies the history, the association, and the character of the people. The universities of England represent England's wealth, her history—rich with noble examples of piety, learning, and chivalry, her national temperament which has gone further in making the England of to-day than her reputation for scholarship or research. The Scotch Universities bear the strong impress of the tendencies of the people, being democratical in government, inexpensive in working, and encouraging habits of thrift, endurance, and independence among their votaries. The German universities typify the independent speculative thought which characterises the Teutonic people, an independence which common sense and the instinct of self-preservation has denied to the body politic. The American universities do but express the nobler aspirations of the people, the universal desire for knowledge and culture, the resolve that knowledge and culture shall be free to all at the least possible inconvenience. That the culture in many cases is superficial is, we trust, but a passing phase in the history of a busy people.

Do the universities of India correspondingly reflect and satisfy the aspirations, the needs, and the peculiarities of the Indian people? If the answer must be given in the negative, no blame can attach to the

people. The Indian University system is but little more than a quarter of a century old; it is not indigenous; it is a system introduced with the most laudable intentions, but a system which, when introduced, had not been sufficiently tested in the land of its creation; a system which, now that sufficient time has elapsed, has shown itself to be inadequate to the needs of a vast metropolis like London; a system peculiarly narrowing in its influence, which prescribes courses of study, examines, but takes no account of the indirect influences of training. It was an unfortunate type, even though modified by the provision of affiliated colleges, to introduce into India, the people of which country being by temperament adepts at learning, at memorising the smallest details of prescribed books, a people long accustomed to think in narrow grooves of thought, essentially conservative in all phases of the national life. Our Indian system of universities with their affiliated colleges has this one great merit in its favour—it is cheap. It affords a means of education to the poorest student whose parents, after a most laudable and strenuous effort, are just able to pay for an education which opens the door to the Public Services to their son. And then the end and purpose of the student's education is supposed to be achieved. It is said with truth that engrossing family matters, the necessity that the student should at once seek means to support himself and his immediate relatives is in part responsible for this. We have no research fellowships to enable the promising graduate to devote a few years to his special study after taking his degree; we have no special schools or institutions for research such as are coming rapidly into existence in Germany, France, and America, in which such special study may be pursued. This all means money and support from Government and a generous public, which at present is not forthcoming. Grant all this. Still, the University system of this country must be held responsible in great measure for the poor intellectual results of the last quarter of a century. For that system gauges education by no other means than examinations. An affiliated college stands or falls according as it is successful in passing its students through the allotted examinations, and although individual institutions and teachers may do their best to raise the tone of the teaching, generally there is no time, there are no means, for encouraging learning for learning's sake; and while this is so, no other ability can be expected from our students than the ability to pass examinations.

Genius will always rise superior to system, and some of the world's greatest minds were never disciplined at the great national centres of learning. But other minds equally great have acknowledged their indebtedness to these centres, while the moral influence of these latter on

the average intelligent and impressionable student cannot be too highly estimated. Consider how these centres of learning have attracted to them in all ages men of parts and learning, and have made the respective countries in which they were situated famous throughout the world. Think of ancient Egypt, and Alexandria with its schools of learning, its library, and its philosophers at once engross the attention. What would Greece have been without its Athens and its schools of philosophy? Mediæval France, Italy and England without a Paris, a Bologna, an Oxford? Scotland without its Edinburgh, Germany without its Bonn, its Berlin or its Heidelberg?

Has India any such centres of learning capable of arousing similar sentiments of loyalty and reverence; or is she likely to have such under the present University system? What is, for instance, the feeling of the graduate towards the university of this Presidency? To him it is represented by the one solitary building in which his degree was conferred on him. The university to him is but a meaningless term, an abstraction. His feelings are centred on his own local isolated college, and what those feelings are will depend very much on the head of the college. That it is possible for a student to regard his college with feelings of intense loyalty and reverence is evidenced by the unique success which has attended the Christian College Day movement. But the mention of the name of his university can never send that thrill of pleasure through his body that the name of Oxford, Cambridge or other universities does through their respective *alumni*. Where is the bond of union which should exist between the students, say, of the Presidency College, Madras, and Kumbakonam, being members of the same university; or even between the students of the three first grade colleges in Madras, the Presidency College, the Christian College, and Pachayappa's College? Is there a feeling abroad that such a bond of union should exist? We think there is; for this feeling has lately found expression in an attempt to establish a Students' Association which may form a bond of union between the members of the different colleges of Madras. It is a scheme which must have the sympathy of all who have the interests of our students at heart and which, if carefully thought out, and its importance persistently insisted on, may bring success and credit to its promoters. Our late Director of Public Instruction fully appreciated the weak point in our University system. In his Convocation Address he spoke of Madras 'becoming more and more a university town, more and more the focus of the great educational movement.' The tendency, he thought, of the great Educational Agencies would be to locate their first grade colleges in or near Madras, and that the gathering together of these educational forces

would, he trusted, raise this university to a far higher sphere of usefulness than that which it now occupies—confer on it uniqueness and individuality, and tend to give to the professors of its colleges university rank. This is a consummation devoutly to be wished. But it is a consummation which leaves the students out of account. Let our first grade colleges be increased as you please. But they will still exist, under the present system as isolated bodies, the students of which will have no more in common than at present. The university itself must be more in evidence. There should be university buildings for the common use of all university students. There should be a university library filled with the gems of literature, and offering facilities for reading that no other library in the Presidency can; a Reading Room supplied with the best current and periodical literature where students may meet on common ground; there should be lecture rooms where special lectures would be given by professors appointed and paid by the Senate, lectures specially adapted for an honours and M.A. course, the provision for such at present being altogether absent; there should be laboratories and facilities for scientific research such as exist in most European universities and such as no individual college can supply; and there should be an available building for debates and other social functions of the students; and, so far as Madras is concerned, such buildings might well be located on the Beach, and form a connecting link between the Presidency College and the Senate House. All this, without interfering with the present arrangement of affiliated colleges, would tend to create a bond of union among university students, would give them more of a university status, would draw to Madras the most promising scholars, and would give them the best teaching that could be provided. This is an ideal which, backward as may be the province itself, the university of the Panjab seems to be anxious to attain to. This proposal for the establishment of the nucleus of a teaching university, while going a long way to remove the reproach of even less than respectable mediocrity which attaches to intellectual results in India, is one which need not interfere with the independence of the affiliated colleges. It would, however, supply wants which those colleges cannot supply, viz., a common centre of learning with all the advantages, intellectual, social and moral attaching thereto, including such highly specialised teaching as single colleges cannot command. Just as Benares and Trivadi, near Tanjore, are famous for the special study of Sanskrit and which answer the purpose of universities far more than do our so-called universities, so these common centres of learning would, in time, evolve special lines of study in those branches for which India offers peculiar facilities. In

the long list of the world's universities, the Indian universities might then take what they cannot now take by reason of their negative existence, a really creditable place. Modest as is the proposal for the establishment of the few necessary buildings for a teaching university and for endowment of professors and research fellowships, the requisite funds it will be said are not forthcoming. Certainly the students' fees, necessarily low, will go but a short way to cover the expenses. The circumstances of the country demand that education, even the highest education, shall be comparatively cheap. State aid and private munificence must therefore be invoked. The State can scarcely withdraw, as it seems inclined to do, from the support of higher education in a country where it has all along acknowledged its responsibility in this respect, and at a time when it is beginning to acknowledge a similar responsibility even in such a country as England. The chances of State aid being increased rather than diminished will be greater if private munificence were more in evidence. Let the rich men of India consider how much education in other countries is indebted to the princely charity of private benefactors. A noble or a more patriotic line of conduct cannot be imagined than that which by the endowment of and through the agency of education seeks to give a bond of union to the various units represented in this country by men differing in language, race, religion and customs in such a way as to make of India an epitome of the world. It is by education alone, and by that higher education in particular, which acts upon and influences all grades of education beneath it, that the common interests of the country will be forwarded, that the moral, social and intellectual status of the people be raised and their industrial and commercial prosperity be assured! The establishment of common centres of learning, be their beginnings however small, will do much to bring about such a consummation, and will give to India just that which she specially needs to make her scheme of education rounded and complete—*bona fide* universities.

The Chairman said they had reason to congratulate the Society on its having secured so interesting and eloquent an address for its valedictory meeting. He thought it would be quite superfluous for him to put into words what they had better expressed in inarticulate manner, viz., their admiration and thanks to Mr. Denham for his Address. The lecturer had travelled over a wide field and laid before them many things that were most interesting and important, and likely to arouse thought, and he trusted thereafter to bear good fruit in a great variety of ways. He thought it was exceedingly well that at the close of a Session they should have thoughts like those impressed upon the minds of the mem-

bers. He was glad to find that Mr. Denham at the outset had laid before them as a fundamental principle that they could not, and ought not, to desire to introduce total and radical changes, for it was only by growth, by slow and gradual growth and by patient labours that they could hope to introduce what had been found profitable in other places. It was only thus that ideals in the world, be it that of a university or that of anything else, could be really attained. It was a principle of the greatest importance, which ardent and young reformers were in danger of forgetting; and the Ideal University of India, before it could be realised, would need not only the thoughts of the Professors and students but also the patient thought, careful study and the long personal investigation of considerable generations to come. It must be granted that there were defects, evils, and failures in the system of university life in India just now, but they should remember also that the plant had been planted, that the plant was growing, and that it had borne some good fruit. They should learn the various thoughts of young and ardent university reformers, but not constantly be pulling the plant up by the root. There was no Royal road to the sudden attainment of any great need that it was worth their while to strive for. While that was true, they should all think in all years to come of all that had been laid before them. They should try to see in what ways it was possible to develop the present system, which, with all its defects, had done so much to organise education and spread enlightenment through the land. Mr. Denham had placed before them in emphatic terms all that was desirable for a fully developed university to have. Mr. Denham had done his part and done it well. He (Dr. Miller) feared that most of them, at least the students, who formed that Society could not vary much towards the realisation of new university buildings, or the foundation of libraries or the endowments of research fellowships, or in all those great things which were desirable that our university should have. He assured them, however, that it was within their power to do a very great deal to help India in the search for an Ideal University. He urged upon them the necessity for throwing more energy and spirit in the work of Debating Societies to systematically organise debates on various subjects between the students of the various local colleges. Debating Societies formed an important factor of education. He said that the principle, the bad principle, of subordinating the importance of real education to that of examinations was a very unhealthy feature of the Madras University; but he hoped that the students, by vigorously working in Debating and other similar Societies, could do much towards getting sound knowledge.

In connection with the above paper we publish a notice which has appeared in the columns of our esteemed contemporary, the *Bombay Educational Record*.—(E. M. J. E.)

"The *Madras Christian College Magazine* for December, in commenting on Mr. Denham's recent admirable address on an Ideal University, points out that Mr. Denham is in error in ascribing some of the defects of Indian Universities to the fact that they were constituted on the model of the University of London, inasmuch as the model was not strictly followed. "Theoretically," says our contemporary, "Madras and London are similar, but any one who has known both can see at once the widest practical differences. The Madras system is really less like that of London than that of the Victoria University." The matter is not, perhaps, of great importance, but it may be worth while to point out that Mr. Denham and his critic are both right and both wrong. When the great despatches on Education of 1854 and 1859 were drafted, in which the University of London was prescribed as the most suitable model for India, London only admitted to degrees those students who had kept terms in an affiliated college, and the system was the same as that now followed in India. It was not till 1860 that the degrees were thrown open to all the world. The Indian Universities were thus constituted on the model of London, but London as it was before the great changes of 1858-60.

EDITORIAL.

Now that the Madras Physical Training and Field Games Association has been relieved by the Government of by far the more important part of its work, viz., the training of gymnastic instructors, it is somewhat difficult to find a reason for the continued existence of the Association in its mutilated form. The success which has hitherto attended that part of the Association's work which deals with field games is scarcely such as to justify the existence of a full-blown Society. As far as we know, the work of the Association will now be confined to the annual competition which takes place in January. The display on these occasions, at least so far as the athletic portion is concerned, is by no means a very creditable one, and is sufficient proof that love for manly sport among the Hindus cannot be fostered by the bait of few prizes. Such matters had better be left to the students themselves and are peculiarly the province of such an Association as the proposed Intercollegiate Students' Association.

In another column we print the text of the paper recently read at the Presidency College Literary Society on "India in search of an Ideal University." The summary which appeared in some of the newspapers evidently gave rise to many misconceptions which a perusal of the text cannot but dispel. The writer of the paper was fully aware of the radical difference between the universities in this country and that of London. But important as is the work done by our affiliated colleges, they do not offer, even where they exist in the city in which is located the so-called university, a common centre of learning, nor do they afford a bond of union among the students such as is afforded by European and English universities. The main object of the writer was to show that while an Ideal University could not possibly be formally initiated in India, much could be done, and should be done, to bring our existing universities more into evidence.

Mr. Denison Pedley, the gentleman to whom we referred by implication in one of our 'Editorials' in the November issue, writes to us from London to say that the schools which underwent dental inspection by him were *pauper schools* in which the managers stand *in loco parentis*. If by these 'pauper schools' is meant what are known as workhouse schools or other schools where the children are entirely removed from home-influence and are supported by public bodies, then we agree with that gentleman that his recommendation to place such children under dental inspection is not 'an extravagant one.' But the source from which we derived our information certainly led us to suppose that ordinary Board schools were referred to. Mr. Denison Pedley states that the managers of one school at Hanwell have unanimously adopted his report and "have appointed a Dental Surgeon to attend a thousand children who never knew before what it was to use a tooth-brush." It would be rather interesting to witness the "tooth-brush drill" to which Mr. Pedley refers as being of as great importance as any other gymnastic exercise. There is no doubt much suffering is caused in after years by the neglect of the teeth of children, and in cases where the teachers or managers of schools take the place of parents systematic dental inspection is both natural and proper.

The second Annual Meeting of the Christian College Day, held on the 28th December last, passed off with so much *eclat* that the promoters of the scheme need now be under no apprehension, as to the permanent success of the movement. No one who was present at the General Meeting will be likely soon to forget the extraordinary exhibition of enthusiasm which greeted the veteran Principal of the College when he rose to respond to the toast of the evening, viz., the Madras Christian College. After such a demonstration Dr. Miller need never doubt the deservedly high place he holds in the estimation of the *alumni* of the College. We trust that the other Colleges of the Presidency will institute similar reunions and thus stimulate and preserve the feeling of loyalty of past and present students towards the *alma mater* of their respective Colleges. We trust that those who are responsible for the management of the proceedings of the Christian College Day will on future occasions see that some limit of time is put on the speakers. Where some sixteen speakers hold forth, such a limit is absolutely necessary if the meeting is to close within a reasonable time. On the last occasion the advertised time for the close of the meeting was much exceeded, and to add to the discomfort, some of the speakers were almost inaudible even to those on the platform.

CORRESPONDENCE.

THE F. A. HISTORY PAPER.

Sir,—I hope you will be kind enough to publish the following letter in your world-wide Journal at your earliest convenience.

With regard to question VI in the history paper set for First in Arts examination, I am of opinion that it is puzzling and ambiguous. I leave it for the readers to judge. The question runs as follows:—

“Give the causes and terms of the concluding treaties of the First and Second Punic wars.”

Does the examiner expect us to give the causes which demanded instant peace or does he expect from us the causes of the wars itself? The one seems to be as important as the other. The causes which led the Carthaginians to conclude a treaty, namely the special circumstances in which Hannibal was placed, his hopes of getting fresh recruits from Carthage under the lead of Hamilcar and his utter disappointment when Hamilcar's head was thrown before him and lastly the defeat of the Carthaginians at Zama by the superior tactics of

Scipio—these are certainly noticeable. We hope some allowance will be made for those who have not attached the same meaning to the question as the examiner. We regret that this and the ambiguities of sums VIII and IX in the last Matriculation Arithmetic paper escaped detection in the Senate's perusal.

A Candidate.

NEWS AND NOTES.

LOCAL AND INDIAN.

The result of the Matriculation Examination of the Bombay University has been declared. Out of 2,970 candidates who had presented themselves for the examination, 1,056 were declared to have successfully passed.

The following young ladies have passed the recent B.A. Examination of the Calcutta University:—Miss Indira Tagore (private student) and Miss Priyamboda Bagchi (Bethune College). Miss Florence Holland (private student) has passed the M.A. Examination.

His Excellency the Viceroy has commemorated his visit to Poona by offering a Silver Medal to the pupil of the Government High School, New English School, or Native Institution, who passes the next Matriculation Examination with the highest number of marks.

We are glad to see from the Proceedings of the Director of Public Instruction that the Industrial classes of the Reformatory School, Chingleput, have done remarkably well in the examination lately conducted by Mr. Holder, the Acting Superintendent of the School of Arts.

We understand that there is an idea afloat in Madras, in connection with the Madras Hindu Reform Association, to enlist the services of a few able and willing ladies to give addresses or lectures to the many native ladies who are anxious for self-improvement. We wish the scheme all success.

The Director of Public Instruction, Madras, has passed orders to the effect that “Mr.” should not be placed before native names. Native officers, however, who draw more than Rs. 50 a month are to be accorded the letters M. R. Ry. before their names if they are Hindus; and Sahib after their names if they are Mahomedans.

A Board of Accounts has been appointed to scrutinise the income and expenditure of the Calcutta University. The Board will consist of three Fellows of the University, to be appointed annually by the Senate. They will meet ordinarily every three months to examine the accounts, prepare the budget and transact all business relating to the finances of the University.

Here is a novel, if an expensive, method by which the Indian Universities may discourage and prevent infant marriages. A candidate in the recent election of Fellows for Bombay University stated in his electoral address that 'the only proper way in which the University can help in the work of discouraging infant marriages appears to me to be to allow private persons to found scholarships to be held by bachelors belonging to those classes in which the evil of early marriage prevails.'

It is remarkable how few of the F.A. candidates take up the subject of Physiography as an alternative subject to that of Physiology. Possibly the reason is that being a new subject the best teaching is not available for it, and candidates also steer clear of it as being an unknown quantity. There can be no question that good teaching will make the subject very popular. Its superiority educationally over Physiology cannot be doubted—if only that it offers less opportunity for cram.

The Administration Report of the Department just published shows the annual expenditure of the Poona Native Girls' School to be Rs. 10,500, and the limited number of pupils brings the annual cost to Rs. 135 per head, out of which Government pays Rs. 90. Under these circumstances, it is not friends in England or sensational deputations who can afford help. What is wanted is that the educated classes in Poona, if they honestly value the school, should make it clear that they do so in the only unequivocal way, viz., by using it and sending their girls to it to be educated. This is the one thing needful.—B. F. R.

The following is the result of the election of two Fellows of the Bombay University:—

Mr. Eruchshaw Framjee Settna, L.M. and S., 165 votes; Mr. Jamiétram Nanabhai, B.A., LL.B., 136 votes; Mr. Rustom K. R. Cama, B.A., LL.B., 131 votes; Mr. Sitanath Gopinath Ajinkya, B.A., LL.B., 104 votes; and Mr. Chintaman Narayan Bhat, B.A., LL.B., 95 votes.

Dr. MacDonald, the Registrar, who scrutinized the votes, has reported to the Syndicate that Messrs. Settna and Jamiétram have been only elected Fellows under the new Rules. The Syndicate will, in due course, submit the result to Government with a view to the successful candidates being nominated Fellows by them.

The Maharajah of Mysore's Sanskrit College at Mysore is maintained out of Muzarayi Funds. These have been supplemented by State Muzarayi grants and now amount to Rs. 25,172. In October 1883, His Highness laid down definite principles for the management of the Sanskrit College and Charitable Institutions and promised that after some experience had been gained of their practical working, final orders would be passed. During the 9 years which have since elapsed, much has been done for the diffusion of a knowledge of Sanskrit Literature in all its branches. Owing to the rapid growth of the College, it is found impossible to maintain, with its present funds, the high standard adopted, and a grant-in-aid from the Educational Budget of Rs. 6,500 per annum has accordingly been sanctioned.

The Officiating Chief Commissioner, Barma, is evidently aware how much the general education a boy receives at school can be subordinated to the purpose of serving as an introduction to technical education. We trust his words will have effect not only in Burma but in Madras.

He says:—The subject of technical instruction has lately attracted much public attention. The Government should no doubt encourage instruction in crafts, especially in those which require artistic skill, but this encouragement can only affect a few boys, while it is possible at a small cost to teach a large number to use their senses and to make them generally 'handy. For this reason the Officiating Chief Commissioner attaches much importance to drilling, drawing, and manual training, and in next year's report the Director is requested to report fully on the progress made in these subjects.

The latest Bulletin of that much-abused branch of the service known as the Agricultural Department is columnar in nature and forbidding in appearance; but in spite of these defects it will probably secure a wider circulation than any of its twenty-three predecessors, for it gives in parallel columns the English and Botanical names of the field crops of the Presidency together with their synonyms in the chief vernaculars of India. To the average Madrasite the agricultural literature of Provinces outside his own benighted Presidency is unintelligible owing chiefly to

the numerous names by which the same crop is known in different parts of the country. His difficulties should now be at an end, though it is a matter of doubt whether his proverbial interest in Indian agriculture will be thereby increased. The Botanical names adopted in the present Bulletin are those given in the recently published "Dictionary of Economic Products." It should be noted that a few of the crops have been Botanically re-christened, for example, Horsegram and Cumbu.

The Carpet-weaving department of the Anjumani Mufidi Ali Islam Industrial School, Madras, seems to be in a very unsatisfactory condition. Mr. Havell, Superintendent of the School of Arts, says in his report:—

The quality of carpet turned out is only worth about Rs. 5 or 6 per square yard in the open market. The price charged is Rs. 7-12-0. I understand that the Anjuman sustained a loss of about Rs. 1,000 on a consignment valued at Rs. 3,000 recently sold in England. It is a great mistake for the Anjuman to attempt with unskilled labour to turn out a fine kind of carpet. A coarse kind of rug with bold patterns, selling at about Rs. 3 a yard, is greatly in demand in the home market and the Anjuman boys are sufficiently well-trained to turn out this class of work.

The Director of Public Instruction thus sums up the work of the Institution.

The institution has afforded temporary occupation and sustenance to number of poor Muhammadan children, who, apart from it, would have been badly off. But that it has succeeded in giving to boys a literary and industrial training such as will enable them when they grow up to earn a better livelihood as skilled workmen than they would otherwise have earned, can hardly be admitted, save in a few exceptional cases. The eleemosynary character of the institution has ever tended to obscure the educational, and the Committee has been led to attach too great importance to the carrying on of the several industries as paying concerns from a market point of view. This policy will, in the Director's opinion, do little to raise the industrial status of the Muhammadan community, which is surely a far worthier end than merely to afford a little temporary assistance to a few children belonging to the more indigent members of that community.

We trust that the proposed reorganisation of the management will bring an access of prosperity to what should be a most useful institution.

LITERARY AND GENERAL.

Mr. George Howland, the author of 'Practical Hints for Teachers,' died October 23rd of last year. He was Superintendent of Schools, Chicago. The book which is associated with his name is well worth perusal. An American journal speaks of it as 'an inspiration to teachers.'

It is proposed to enlarge the monthly 'Proceedings' of the Royal Geographical Society, and convert that publication into a magazine which shall fulfil the functions of a geographical record of current events, and at the same time serve as a vehicle for original articles on subjects of geographical interest.

The School of Pedagogy connected with the University of the City of New York graduates its second class this year, sending out nine well-equipped Doctors of Pedagogy, who have made special study of the science of education and the art of educating. Hereafter the School is to be as much a department of the University as is the School of Law, and the professors will be paid in the same way.

We commented some time since on the scarcity of good elementary text-books, on subjects like political economy. If the scarcity continues it is not because such things do not pay. We do not quite know what success met Professor Raleigh's admirable little elementary work on "Politics," but Mr. Arnold Forster has made nearly as much out of his "Citizen Reader" as if he had been the author of "David Grieve."—*Echo*.

The first public higher girls' school is shortly to be opened in Vienna. "Much labour has been necessary," says the *Tageblatt*, "to bring the campaign in favour of the development of the education of women to a successful issue in the Austrian capital." The regular course of study will last five years, but there will be a sixth year, devoted to revision, for any students desirous of working for the ordinary leaving certificate.

It is quite evident that the English Government, if it has the opportunity, seriously intends to deal with the question of secondary education. Both Mr. Mundella and Mr. Acland have taken up the gauntlet thrown down by Sir William Hart Dyke immediately before the latter went out of office. Secondary education is to come under State control,

and secondary teachers will have to be registered, and, therefore, trained. These are the main points on which present ministers are agreed. On both points India long ago made up her mind.

Early in the term the Oxford dovescotes were fluttered by the rumour that Professor Froude intended to admit no women to his lecture. So far, no Professor—with one easily-guessed exception—has refused to admit what are technically known as “students”; and the rumour was all the more alarming, as about a quarter of the resident students are reading modern history. All has, however, been happily explained. The Professor, in his course of lectures on the Council of Trent, intended to deal with certain corruptions in the Church, which were better not discussed in a mixed class. He will gladly admit the women-students to his future courses.—(J. E.)

The Paris Municipal Council have lately come to an important decision. In all their primary schools, whether for boys or girls, one morning or one afternoon a week will in future be devoted to open-air games, instead of to the ordinary lessons. Three masters and three mistresses, acting under the inspector-general of gymnastics, will be responsible for their proper organization. A training course in games will be established, and certificates will be issued which will entitle the holders to an additional salary of 50 francs a year. A credit of 30,000 francs has already been voted. The Council has also spent more than 80,000 francs this year on school colonies and excursions.

The lecture delivered last month by Mr. Gladstone has been reprinted by the Press. It will probably be chiefly bought by those who heard it, to keep as a memorial of a unique occasion. The unanimous feeling among all who were present—with the exception perhaps of a few unimaginative persons—was that they were witnessing a historic spectacle. The older members of the University were reminded of another sight some ten years ago, when the whole of Oxford gathered in the Hall of Trinity College to welcome Cardinal Newman. There has been no other scene in recent years which can be compared to these two; and it is difficult to suggest another that is likely to rival them in the near future.—(E. R.)

Last month was characterized by some uncommonly plain speaking about the Scottish Education Department. Professors Laurie and Moiklejohn criticised in severe terms the present constitution of the Department. When the Secretary Security was first appointed, some of us objected very strongly to going through the farce of making him

31

the Scottish Minister of Education, prophesying that the Permanent Secretary would become the real head of the Education Office, and so it has turned out. The country needs, and urgently needs, a real Minister of Education, and there is another thing needed: the position of teachers as experts should be legally recognised. Teachers should not merely be permitted to approach all Education Boards—big and little—these Boards should be bound to consult them.—(J. E.)

Messrs. Longmans and Co., are publishing two works on Buddhism; one, two lectures by the late Canon Liddon; the other, by Reginald Stephen Copleston, D.D., Bishop of Colombo, President of the Ceylon Branch of the Royal Asiatic Society, entitled *Buddhism, Primitive and Present, in Magadha and in Ceylon*. The scope of this work is limited to the history and description of that particular stock or branch of Buddhism which has been established and continued in Ceylon.

The author has tried to treat this subject in a way at once popular enough to interest the general reader, and accurate enough to be of value to the scholar. With a view to the former purpose he has avoided as far as possible the use, in the text, of Pali words and technical terms; with a view to the latter purpose, he has given references for every statement which professes to be drawn direct from the Pali books.

The statements and opinions put forth are not derived at second-hand from translations or manuals. The author has read a large part of the original ‘sacred books’ of which he speaks—almost all that has been published and a good deal that has not—and he has had access to competent Sinhalese authorities.

In regard to the contents of the sacred books and the moral value of their teaching, as well as in regard to the description of modern Buddhism in Ceylon, the author has aimed at not merely an impartial but a generous treatment.

The following is from the Report of the Committee of Council on Education (England) recently issued:—

Day School Attendance.—The names on the register have increased in the same period 1870 to 1891 from 1,949,026 to 4,824,683; the scholars present at inspection from 1,434,766 to 4,426,060; and the average attendance from 1,152,389 to 3,749,959.

Teaching Power.—There were at the end of 1891, 47,823 certificated teachers, against 12,027; 23,508 assistants, against 1,236; 28,131 pupil teachers, against 12,842 at the end of 1869.

The untrained teachers are proportionately less numerous than last year, the numbers being 31.11 per cent. of masters, instead of 31.72 and 53.00 of mistresses, instead of 54.75 in 1890.

Teachers' Salaries.—There has been an increase in the average salaries; the average salaries of masters having risen from £94 12s. 1d. in 1870 to £119 13s. 3d. in 1891 (having been £120 19s. 2d. in 1885, £119 15s. 5d. in 1890); and the average salaries of mistresses from £57 11s. 1d. (and £76 7s. 5d. in 1890) to £76 11s. 9d. The principal teachers in the Metropolitan district received salaries as follows:—

The average of 362 masters in Voluntary Schools was	£152	6s.	6d.
and that of 385 „ Board „	£284	1s.	6d.
That of 793 mistresses in Voluntary „	£90	18s.	3d.
and that of 765 „ Board „	£200	9s.	9d.

The extent to which the Training Colleges have contributed to the present supply of efficient teachers in England and Wales is given thus:—

Of 19,199 masters, 64.58 per cent. had been trained for two years; 4.31 per cent. for less than two years; 31.11 per cent. being untrained.

Of 28,624 mistresses, 41.10 per cent. had been trained for two years; 2.90 per cent. for less than two years; 53.00 per cent. being untrained.

REVIEWS AND NOTICES OF BOOKS.

TEACHING IN THREE CONTINENTS. Personal Notes on the Educational Systems of the World, by W. CATTON GRASBY. London: Cassell & Co.

We have only one regret as we lay down this book, and that is that India is not included in the survey of the countries of which the author treats. Mr. Grasby visited most countries of Europe, the United States, Canada, and Australasia, but India had no place in his travels. Our wish is purely selfish; for we do not pretend that India has much to teach other countries in the matter of education. But we certainly should have liked to have had the advantage of having our educational system criticised and discussed by so able, acute, and experienced an educationist as the author. However, we in India can learn much from what Mr. Grasby has written concerning the educational systems of other countries, and we trust that every training college and normal school throughout India will henceforth consider a copy of this work as an indispensable item in the library catalogue. Certainly no country so much needs to know what is being done outside its borders as does India.

No one who has had much personal acquaintance with the working of the different educational systems discussed by Mr. Grasby, or who

has read much of them, will be disposed to find fault with the author's conclusions. Those conclusions are based on an experience gained by more than one visit to the countries named. They are the result of much patient investigation, of personal inquiry and inspection. We must be particularly grateful to Mr. Grasby for the light he has thrown on the American educational system. He is alive to the baneful effects of allowing education in the districts to fall under the government of local politicians, of so many amateur teachers taking temporarily to the profession of teaching, and of so many teachers being untrained. But of these latter, considering their enthusiasm for their work, and the countless opportunities which are offered them to counteract this defect, Mr. Grasby thus writes:—

“Speaking generally, the Normal schools in the various States do not provide more than a very small proportion—in Pennsylvania, about one-fifth of the vacancies are filled with trained teachers—of the number of teachers required each year. An ‘untrained’ American teacher must not be compared to an untrained teacher elsewhere. In consequence of these institutes, the public at large have such an intelligent knowledge of the principles of teaching, that one who has never taught before enters upon her work with a generally correct, concise, and intelligent idea of what to teach, and how to teach it.... To what extent are we justified in considering men and women as ‘untrained teachers,’ who have been subject to the indirect influences and means of training which I have endeavoured to describe? To watch them at work, they do not show the great ‘lack of training’ educators speak of.”

For the ‘ins’ and ‘outs’ of the working of the American system one cannot do better than to go to Mr. Grasby's book. He will soon know all about ‘Institutes,’ ‘Summer Meetings,’ ‘Reading Circles,’ ‘Associations,’ ‘Pedagogical Museums,’ &c. Although the greater part of the book is devoted to America, other countries come in for their share. We note with pleasure that Mr. Grasby makes full allowance for the great improvement that has lately taken place in England in the matter of elementary education and how favourably the provision for this latter in England compares with that in America—and this, too, before the passing of the Free or Assisted Education Act of last year. The public provision for education in Scotland, France, Germany, Australia and New Zealand is also discussed, and a most interesting chapter is devoted to the all-important question of ‘How work is tested’ in these different countries. The principle that work should be tested by examinations alone is one that is practised *ad nauseam* in this country, but is fortunately becoming more and more discredited in England where recent events go to show that the policy of the Education Department will be to modify still more the Payment by Results System. Under the heading of ‘The New Education,’ Mr. Grasby dis-

cusses the subjects of Kindergarten, Technical Education and Science Teaching, and compares the provision for and the progress and developments of these subjects in the various countries which he visited. England suffers somewhat by the comparison. What he has to say on the subject of Kindergarten is borne out by the remarks of the late Mr. Joseph Payne in his newly published work on Education. But if there is no true Kindergarten in England, what have we to say of India where the grossest ignorance of the subject prevails and where practically no pretence at teaching it exists?

Altogether Mr. Grasby's work is one which cannot but instruct, interest and inspire the genuine teacher, and with this end in view we trust the Education Department here in India will see that each teacher under training can have easy access to it.

RULERS OF INDIA, LORD LAWRENCE, by SIR CHARLES AITCHISON, K. C. S. I., M.A., LL.D., formerly Lieutenant-Governor of the Punjab. Oxford Clarendon Press, 1892.

To write on so familiar a subject as 'Lord Lawrence' would seem a superfluous, if not an invidious, task. We suppose that there is scarcely another hero of modern times of whom so much is known by most people as of Lord Lawrence; and yet Sir Charles Aitchison has managed to tell again the oft told tale in such a way as to instruct and command the attention of even of those who know most of John Lawrence. The author has made discreet use of the Settlement Reports of the Districts of India which he truly designates as 'mines of information—anti-quarian, historical, scientific, statistical and general—too little known in this country.' We presume that Sir Charles Aitchison penned these words in England, and that he is here referring to that country. If so, he might have most certainly included India itself as a country where our students know nothing of the literary treasures which lie buried and uncared-for in almost every large town. But the author had also the great good fortune to be associated personally with Lord Lawrence in the Punjab, as also later on when the Saviour of the Punjab afterwards became Viceroy of the Empire which he had preserved. And yet on closing the book one does not seem to have got a very strong impression of the personality of its hero. His character is well-pourtrayed, but the man himself does not seem to live before us as he should, considering his remarkable individuality. But Sir Charles Aitchison does not pretend to write a biography of Lawrence—he wishes rather to discuss the nature of the work accomplished by his subject in India, and the special circumstances which called for and gave a character to that work. This the

author has succeeded well in doing. The work of Lawrence as a District Officer and Commissioner is well described. The chapter on 'A Non-Regulation Province' is an important one dealing as it does with the peculiar nature of Lawrence's work. Sir Charles thus concisely states the principles which characterised the Non-Regulation system adopted by John Lawrence:—

'First, the country was wrapped out into Districts, so small in respect of area, population, and review, that it was possible for the Civil Officers to gain a complete knowledge of them and to become personally acquainted with all the men of rank, and influence. Secondly, every civil functionary, from the highest to the lowest, in due order of subordination, was vested with judicial, fiscal, and magisterial powers, so as to secure concentration of authority and undivided responsibility. Thirdly, the laws and procedure introduced were of the simplest kind, and were based, as far as might be, on Native customs and institutions.'

The Mutiny is discussed in two chapters in which Lawrence is occasionally almost entirely lost sight of. What share, however, he took in that awful drama is well told, although personal incidents have no place in the story. The Punjab was saved solely by his precautions, to say nothing of the beneficial effects which, by that time, his non-regulation system had produced in the Province and which tended to the same result. No interest attaches to the after life of John Lawrence. His Viceroyalty was not eventful, nor did he gain any additional lustre or credit by his three years' Chairmanship of the London School Board; and we are one with the author in the opinion that he was not naturally suited for such work as the latter position involved. His great name saved his reputation as chairman.

To those who already know something of the life and times of John Lawrence, Sir Charles Aitchison's book will be welcome; and for these it is chiefly intended. It neither supplants nor wishes to supplant the admirable biographies of Lord Lawrence which exist; but for its broad yet firm grasp of the work and mission of the Saviour of the Punjab we do not know its equal.

CONSTABLE'S ORIENTAL MISCELLANY OF ORIGINAL AND SELECTED PUBLICATIONS, Vol III. *Aureng-Zebe a Tragedy* and Book II of the *Chace a Poem*. London: Constable & Co., 1892. Price 5s.

This is a beautiful edition of Dryden's once famous tragedy of *Aurengzebe*, and Somerville's second book of the *Chace*. Prefixed to *Aurengzebe* is a copy of the original title page as it appeared in 1676; setting forth that the tragedy was acted at the Royal Theatre and was written by John Dryden, servant to his Majesty. Both *Aurengzebe* and the *Chace* are based on *Bernier's Travels* and approximately portray the character of

Aurangzebe and his times. Copious footnotes accompany each piece for the benefit of Indian readers; but many of them will be found instructive even for English readers. Two illustrations are given, one an excellent engraving of Dryden, and the other a most curious and interesting coloured picture of the Emperor Akbar deer-stalking by night, accompanied by a note by the editor. The picture is beautifully executed and bears evidence of remarkable artistic skill, if we consider the time and place of its execution, and contains, as the editor remarks 'unmistakeable evidence of Western art-training and influence.' The biographical sketch of Dryden is concise and well-written, and includes an estimate of Dryden as a poet. For this purpose the editor gives the reader *verbatim* opinions of such critics as Johnson, Macaulay, Scott, Hallam and Taine, and himself finds the reason for Dryden's unpopularity in the gross indecency of the poets' comedies, the repulsive subjects of his tragedies, the extravagance of action and the turgid ront of language, but chiefly in the comparison which is inevitable between Dryden and his predecessors of the "great age." Dryden was certainly unfortunate in his times. The licentious times in which he lived were unfavourable to heroic efforts; but if a poet's function is, as some maintain, to reflect the character of the times in which he lives, then Dryden most assuredly fulfils this function. It was Dryden's misfortune to live in a transitional age when men gave a loose rein to their passions in the re-bound which took place after the abnormal strictness of manners and morals which characterised the rule of Cromwell. Much, therefore, that Dryden wrote is transitional in character also. Always, too, in great measure, dependent on the public for his living, the poet, even had he been so disposed, was unable to devote his genius to the creation of a high-souled subject. The faults which mar the lighter writings of Dryden and make them unfit for modern representation or even perusal, are not so conspicuous in his tragedies. Yet there are abundant traces of those faults even in *Aurangzebe*, one of the best of his tragedies. Words are put into the mouth of the Emperor which strangely enough express the sentiments of those who, now-a-days, propose some modification of the married state.

'Tis true, of Marriage bands I'm weary grown.
Love scorns all ties, but those that are his own.
Chains that are dragg'd, must needs uneasy prove:
For there's a God-like liberty in love.

Other sentiments, equally subversive of true morality and, therefore, of happiness, the poet puts into the mouths of his characters. The editor, however, is not responsible for the opinions of the author. So far as his work is concerned it is well performed. He has rendered a

no mean poet intelligible to a large class of readers, and has thereby given us an insight into the life and times of an emperor that no ordinary history can.

A BRIEF HISTORY OF THE INDIAN PEOPLES. By SIR WILLIAM WILSON HUNTER, K. C. S. I., C. I. E., M. A., Oxon., LL. D., Cambridge. Twentieth edition, revised. Seventy-eight Thousand. Oxford: Clarendon Press: 1892. Price 3s. 6d.

The twentieth edition! This surely beats the record! In its improved form, embodying as it does "the latest results of Indian historical research and of that more critical examination of the Indian Records which forms so important a feature of recent Indian work" the book must achieve a still wider circulation, and soon make its appearance in yet another and another edition! Sir William Hunter may well be proud of his offspring! To us it has always seemed that the most valuable part of Sir William's history is just that part which treats of matter which is not strictly historical, viz., the introductory chapters on the wonderful physical features of India and of the political systems of its early inhabitants. In the earlier chapters we are told that Sir William has had the advantages of the experience and knowledge of Mr. R. Griffith, formerly Director of Public Instruction in the North-Western Provinces—a gentleman who, in his well-earned retirement, does not sufficiently give the public the benefit of his long experience and scholarly attainments. In a country where the teaching of Geography is so poor, the realistic description which Sir William Hunter gives of its physical geography cannot but be of inestimable value to the teacher both in picturing out the physical features of India, and in assisting him to interpret the history of the country through its geography. For this service alone, Sir William Hunter's History deserves to be in the hand of every teacher in India. But this is not the only service which the book renders. The chapters which deal of the early people of India, the Non-Aryans, the Aryans, of the Greeks and the Scythians, and of Buddha and his followers, are excellent in every particular, and the student might go farther afield and yet not possess anything like so accurate a knowledge and estimate of these people as one who had contented himself with a mastery of the details given in Sir William's book. Each chapter throughout the book is supplemented by a list of books and works containing materials for reference, while the information is brought so much up to date that this edition includes the principal figures arrived at by the Indian census of 1891, and brings down the chronicle of events to the expansion of the Indian Legislative

Council by the Act of Parliament in 1892. The book, excellent as it is for older students, is scarcely suited for boys, and we are not, therefore, surprised to learn that, after having been prescribed as the text-book for the Entrance examination by the Calcutta University from 1886 onwards to last year, it has now been supplanted by Mr. Dutt's simpler and more easily digested work on the same subject. This fact need not and will not detract from the value of Sir William Hunter's History in the eyes of the public generally and of teachers in particular. To this latter class it is invaluable.

- (1) FRENCH DIALOGUES. A systematic introduction to the grammar and idiom of spoken French. By JOHN STORM, LL.D. Intermediate Course. Authorised English Edition by GEO. MACDONALD, M.A. London: Macmillan & Co., 1892. Price 4s. 6d.
- (2) MACMILLAN'S COURSE OF FRENCH COMPOSITION. Second Course for advanced students. By G. EUGENE FASNACHT, Editor of Macmillan's Series of 'Foreign School Classics.' London: Macmillan & Co., 1892. Price 5s.

(1) The celebrated *Dialogues* of Professor Storm of Christiania, Norway, have been translated into English, French, Danish, Swedish, German, Dutch, and Finnish. The edition before us includes the author's latest additions and improvements. Mr. Macdonald's translation and notes have had 'the benefit of the scholarly revision of Professor Storm.' The Preface to the original edition appears in the present book and sufficiently explains the scope and purpose of the *Dialogues*. This preface has become almost a classic, being remarkable for its justifiable onslaught on the methods pursued in schools of teaching modern languages. In it the author complains of that "there has been too much theory and too little practice" and that "the pupil is set to learn an elaborate grammar full of difficult rules and exceptions which he seldom if ever finds occasion to use, and which he speedily forgets again." Professor Storm, not without reason, complains of the ordinary text-books in use, and our experience of English boys is to confirm the author's statement 'that the pupil studies French for five or six years, and fails to learn it; he cannot read it without great difficulty, still less can he write it, least of all can he speak it? The absurd sentences which one so often comes across in Ahn, Ollendorff, quite justify the author in designating those books as unpracticable and their sentences as foolish and nonsensical.' The idea of Professor Storm's book is to give the pupil 'a series of easy dialogues on everyday subjects, arranged on the same principle as grammars are. In this way idioms and grammar are learned simultaneously. Professor Storm's system is based on the fol-

lowing two maxims derived from experience: (1) Living languages are learned more by imitation than by rules; (2) Almost all of those who are familiar with many languages have from the outset learned them from books, by studying easy texts. To attempt to learn a language exclusively by the ear, through intercourse with natives of the country, is simply to waste time.

Englishmen cannot but be grateful for this translation of Storm's dialogues. They will find it just the book that has been wanted for years. The Englishman who masters these dialogues and who can talk them fluently could make his way easily from one end of France to the other; for the sentences are essentially practical and idiomatic.

(2) Mr. Eugene Fasnacht has long been known as a successful teacher and editor. His 'Foreign School Classics' are in use in many schools in England. In many small books Mr. Fasnacht has laboured to make the extremely difficult subject of French Composition intelligible to the average English schoolboy. The present volume is for advanced students and contains no instructions, as such. The object of the author is to supply the student with plenty of English subject matter suitable for translation into French, together with model extracts or prototypes in French bearing on the same subject as is to be turned into French. The first part consists of English passages with parallel French model extracts; the second of English extracts for translation into French; and the third of French model extracts alone. The first two parts are accompanied by explanatory notes. The idea of giving model French extracts bearing on the English subject is a good one; but we are afraid that they will not be studied by the average schoolboy in the spirit that they deserve to be studied in. Unless they supply the pupil with a ready vocabulary, he will betake himself to these dictionary and have the style and spirit of the model extracts for others to admire. The book will be found extremely useful to such as use the model extracts well.

THE ALDINE EDITION OF THE BRITISH POETS. THE POETICAL WORKS OF WILLIAM WORDSWORTH, Edited with Memoir by EDWARD DOWDEN. In seven volumes. Vol 1. LONDON: George Bell & Sons' 1892. Price 2s. 6d.

We cannot do better than quote Professor Dowden's own words to show what are the distinguishing features of this magnificent edition of the Wordsworth's poems. "This edition aims at such a presentation of Wordsworth's Poetical Works as Wordsworth himself would have approved. It gives:—(1) Wordsworth's latest text; (2) in Wordsworth's own arrangement; (3) all Wordsworth's printed notes; (4) the notes dictated by Wordsworth to Miss Fenwick—here signed 'I. F.'; (4) notes by the present Editor, dealing with (a) the dates of composition and

publication of each poem, (b) the occasion, where that can be ascertained, (c) and recording a large selection from the various readings of the editions prior to 1849-50; (5) a chronological table; (6) an Appendix of Poems by Wordsworth not included in his last edition; (7) a reprint of the two poems of 1793, 'An Evening Walk' and 'Descriptive sketches' as originally published; (8) a biography; (9) a brief memoir." The text adopted is that of 1849-50, and is adopted because Wordsworth attached the greatest importance to 'the last copy of the text of an author.' As arranged, Wordsworth's poems illustrate the working and development of his mind. The Notes which professor Dowden has added to those written by Wordsworth himself deal chiefly with the dates and circumstances of the poems, and are intended for an intelligent and educated public. The memoir, consisting of some fifty pages, is written in good style. Strictly speaking, it is more than a memoir—it is partly a critical essay in which the various influences that were brought to bear upon Wordsworth and which show themselves in his poetry, are well and accurately described, as also Wordsworth's mission and place in literature.

How Messrs. Bell & Sons can afford to offer such a volume as the one before us at the price of half-a-crown, is a marvel. A ready and extensive sale can alone repay them. For the volume consists of nearly five hundred pages, is handsomely bound, is beautifully printed on stout paper, contains an excellent engraving of the poet, and is edited by one of the first literateurs of the day. Wordsworth was long in achieving popularity, and in the true sense of the word can never be a popular poet; but Messrs. Bell & Sons will be the means of bringing him to the notice of not a few new readers, and will make his present admirers delight the more in him in this new and beautiful edition.

HINDUSTANI IDIOMS. Translated with Vocabulary and Index. Notes by COLONEL A. N. PHILLIPS, Late Indian Army. Certificate of H. P. College of Fort William.

This book is evidently written by a genuine Hindustani scholar. A Munshi in the Madras Presidency with the author's attainments would soon make enough to retire upon and live comfortably. We must sympathise with the many young officers striving their best to master an intricate language like Hindustani and at the same time finding it difficult to find really efficient teachers. Now that Muhammad Ishaq Khan Bahadur has passed away, a really accomplished Oriental scholar having at the same time a grammatical knowledge of English, must be a rare avis. It is therefore with great pleasure that officers will hail this little book that not only gives them good idioms, but the reasons for their grammatical construction.

It is evident that if the author so chose he could supply a much-felt want, namely, a book of translations from English into Hindustani, each translation to contain from 25 to 30 lines of ordinary English print. If the book contained also some hints regarding translations of Court Martials with translations of such technical terms as Finding and Sentence, Plaintiff, Defendant, and many other words we could name, it would be of the greatest advantage to students.

Now that the High Proficiency Examination is in Urdu, Colonel Phillips' translations would be of the greatest benefit to officers studying for the same. One proviso we would make, namely, that besides the Roman character the Hindustani character should be used. It is astonishing the many mistakes made in spelling by examinees, and no wonder considering the numbers of different letters with almost the same pronunciation in the Hindustani language.

Finally, hoping that Colonel Phillips may be induced to publish such books as we have mentioned, we congratulate him upon his present effort and also the "Griffins" who study it. As any young Staff Corps officer who does not pass H. S. in Hindustani in three years has to leave the service, the advent of Colonel Phillips as an Instructor must be a boon to the whole army.

METAL-COLOURING AND BRONZING, by ARTHUR H. HIORNS, Principal, Metallurgy and Engineering Department, Birmingham Municipal Technical School. London: Macmillan & Co., 1892.

Accurate and careful Text-books both Elementary and Advanced have been prepared and compiled from time to time covering most of the Branches of the Arts. These have been brought well up to date. But we cannot recall at the moment any compilation which treats so thoroughly of the subject now before us, "Metal-Colouring and Bronzing," as the volume under review. In his little book Mr. Hiorns has brought scientific methods to bear on this special industry, and it is quite clear that he deals with it from actual experience and not from any theoretical standpoint. The title "Metal-Colouring" might be misunderstood, but an explanation is given in the Preface. By "Bronzing" is meant the formation of any kind of colour on metals for artistic effects. But the author considers that this term hardly applies in cases "where one metal is deposited upon another by electrical or other means" and in consequence he uses Metal-Colouring as the general term to embrace "every kind and shade of colour which can be produced on metals by any means whatever." We quite see the force of this, but the reader must not make the mistake of thinking that he is to be treated to a disquisition on paints, lacquers or varnishes. The author deals with these shortly

and, as we consider, quite correctly. He writes: "In my opinion nothing should be added to any form of metal for the purposes of metal-colouring except what is capable of becoming a part of itself. For this reason paint in any form is not admissible In the same category are lacquers and varnishes of all kinds." We have all in Madras probably seen a late example of most careful and elaborate painting on metal. In a hubbub of unobservant, uncritical, admiration we may have admired too, but have we not felt the incongruity, have we not turned with relief from the glare of the painted material to the real art work by its side? have we not felt that metal painting is a "spurious form of art?" If not we ought to have so felt. It is for the purpose of educating his taste that the general reader should devote some time to the perusal of scientific handbooks of the same kind as the volume we are now noticing. So far we have been dealing with the Introduction, after which the fundamental chemical relations are touched upon by the author who also adds some interesting general remarks on the nature and object of metal-colouring before settling down to his main task. This last he divides into three parts: Part I, Chemical Metal-colouring; Part II, Electro-chemical Metal-colouring; and Part III, Mechanical Metal-colouring. Included in these are all the various methods of treating different metals, the results of experiments and recommendations as to the treatment of any particular metal for any special purpose. The book should prove of much assistance to the experimenter in the laboratory, and much trouble must have been taken in collecting the great number of recipes.

A. DICTIONARY OF MUSICAL BIOGRAPHY. By the Rev. JOHN T. LAWRENCE, M.A., late Postmaster of Merton College, Oxford, Secretary to the Madras School of Music. London: Simpkin, Marshall, Hamilton, Kent & Co.; Madras: The Society for Promoting Christian Knowledge, 1892. Price 3s.

This little book of some one hundred and thirty pages contains a short account of two hundred and seventy eminent musicians, and is dedicated (we note with great pleasure) to Mr. and Mrs. Grigg to whom the Madras School of Music owes its inception and success. This manual is one of the very few, if not the only, small and inexpensive biographical dictionaries of musical celebrities which exist, and Mr. Lawrence has rendered the musical public of Madras, and more particularly the students of the School of Music, a service by undertaking so necessary a piece of work. It is well up to date, giving the latest particulars of celebrated composers, organists and singers who are still alive, some of whom must be well known by sight to many of those who use this dictionary. The type is very good and the whole get-up of the book remarkably neat and handy.

LONGMANS' ELEMENTARY BOOK-KEEPING, by A. NIXON, F.C.A., F.S.A.A. Longmans and Co., London, 1892.

This is a carefully prepared Primer adapted to the requirements of the junior commercial clerk and book-keeper. The duties of the despatching clerk and a few business forms such as receipts, invoices, contract notes, cheques and bills of exchange. The student is then introduced to the chief subsidiary books and the ledger and in a later chapter to double entry and the journal; and the book closes with a few questions and exercises. We congratulate the author who is a fellow of the Society of Accountants and Auditors on his having produced a useful manual on the art of Book-keeping, though we regret he has not treated the subject as a science. No attempt has been made to convince the learner why he should write this on the Dr. side or that on the Cr. side, why he should subtract this or add that. The subject loses its disciplinary value if the learner at school is not introduced to one principle after another, and is not supplied with exercises bearing on each principle learnt before he is taught the next principle. Admirably as the book is suited to the requirements of the junior clerk, it does not seem adapted to the needs of the school-room.

PRIMER OF DOMESTIC ECONOMY. By EDITH A. BENNETT and H. C. O'NEIL. London: Macmillan & Co., 1892. Price 1s.

Like most of the celebrated Shilling Primers issued by Messrs. Macmillan & Co., this little work on Domestic Economy is excellent in every respect. But we must remember the book is written for English housewives in England not in India. Much that is written, therefore, is not applicable to India, and the book has still to be written that will surpass Miss Keely's admirable little work on the subject. A work which was written specially with a view to the circumstances of this country. The essential characteristics of the little book before us are its simplicity of language and style, its conciseness, and the practical nature of its advice and instructions.

ELEMENTARY CLASSICS. EUTROPIUS. Books I and II with Notes, Vocabulary, and Exercises. By W. WELCH, M.A., and C. G. DUFFIELD, M.A. London: Macmillan & Co., 1892. Price 1s. 6d.

This little book may be put into the hands of the very beginner in Latin. The Editors have introduced one or two innovations which are calculated to smooth the path of the learner very considerably. The vocabularies have been arranged in the order of the text. Exercises are given which consist of five or six sentences made up of words occurring in the chapter with which the exercise runs parallel, or of words but lately used. We have examined these exercises and are convinced that they are made up and graduated as to give valuable assistance in composition. The book may with safety be placed in the hands of the young learner.

Erratum.

In the December issue for "Deduction" on top of page 749, read "Detrition."

EDUCATIONAL NOTIFICATIONS.**Appointments.**

Surgeon-Captain Allen Ewen Grant, M.B., Professor of Hygiene, Medical College, Sub. *pro tem*, is confirmed in that appointment with effect from the 8th October 1892.

The Director is pleased to make the following appointments in the College of Agriculture:—

Mr. S. L. D'Silva, Third Assistant, to be Second Assistant Sub. *pro tem*, vice M.R.Ry. M. Narayana Rau, transferred.

M.R.Ry. R. V. Subrahmanya Aiyar, B.C.E., Fifth Assistant, Teachers' College, to be Third Assistant Sub. *pro tem*, vice Mr. S. L. D'Silva, promoted. *Pro. No. 15,325, dated 19th November 1892.*

M.R.Ry. V. Appayya Sastri, Headmaster, Training School, Chicaole, is appointed to act in the probationary class for M.R.Ry. G. V. Subbarayudu Sastri, on leave, in lieu of M.R.Ry. B. Kameswara Rau. *Pro. No. 15,510, dated 23rd November 1892.*

The Director is pleased to grant one month's privilege leave of absence on half pay to M.R.Ry. S. T. Kallapiran Pillai, Sixth Assistant Lecturer and Sub. *pro tem*, Fifth Assistant Lecturer, Rajahmundry College, with effect from the 7th instant, and to appoint M.R.Ry. K. Venkatarama Aiyar, B.A., to act during his absence. *Pro. No. 15,506, dated 23rd November 1892.*

The privilege leave sanctioned to M.R.Ry. S. T. Kallapiran Pillai, Sub. *pro tem* Fifth Assistant Lecturer, Rajahmundry College, in Proceedings No. 15,506, dated 23rd ultimo, is extended by two months.

The Director is pleased to make the following appointment in the Rajahmundry College, with effect from the 1st instant:—

M.R.Ry. A. Subrahmanya Aiyar, B.A., L.T., Sub. *pro tem*, Fifth Assistant Lecturer, to act as Fourth Assistant, Lecturer, vice M.R.Ry. M. Venkataratnam on other duty.

M. R. Ry. S. T. Kallapiran Pillai, B.A., Sixth Assistant Lecturer and Acting Fourth Assistant, to act as Fifth Assistant Lecturer, Sub. *pro tem*, vice M.R.Ry. M. Kameswara Rau on other duty.

The Director is pleased to make the following appointment in the Teachers' College:—

M.R.Ry. T. V. Sivakumara Sastri, B.A., L. T., Headmaster, Government Training School, Rajahmundry, is appointed Fifth Assistant, Sub. *pro tem*, vice M. R. Ry. R. V. Subrahmanya Aiyar transferred to the College of Agriculture.

The Inspector of Schools, Northern Circle, is requested to recommend a competent successor to Sivakumara Sastri.

The Director is pleased to appoint M.R.Ry. T. R. Venkatarama Aiyar, Sub-Assistant Inspector of Schools, Namakal Range, to act as Sub Assistant Inspector of Girls' School, Second Range, in the probationary class during the deputation of Miss Govindarajulu. This cancels Proceedings No. 15,508 of the 23rd ultimo.

The Director is pleased to grant to M.R.Ry. K. N. Vishweswara Rau, Acting Sub. *pro tem*, Sub-Assistant Inspector of Schools, Udipi Range, privilege leave of absence for seven weeks from the date of relief and to appoint, subject to the approval of the President, District Board, South Canara, K. Anantappa, Inspecting Schoolmaster of the Mangalore Taluk, to act for him in the Probationary class.

The Director grants to B. Raghavendra Rau, Head Master, Training School, Mangalore, leave without allowances for six months from the date of relief.

The Director is pleased to confirm Babu Sasi Bushana Palit, Sub-Assistant Inspector of Schools, Chicaole Range, in the Probationary class, with effect from the 20th December 1892.

The Director is pleased to confirm M.R.Ry. V. M. Subrahmanya Aiyar, Sub-Assistant Inspector of Schools, Erode Range, in the Probationary class, with effect from 1st April 1892.

The Director sanctions to Mr. C. T. Hensman, Headmaster, Training College, Calicut, privilege leave of absence on half pay for three months, with effect from the date of his availing himself of the same before the beginning or after the close of the Christmas vacation. The leave should not run in continuance of the vacation.

2. The Service book should be submitted for information.

3. Mr. Hensman may hand over charge to the First Assistant.

The Director sanctions to M.R.Ry. V. M. Subrahmanya Aiyar, Sub-Assistant Inspector of Schools, Erode Range, privilege leave of absence for 23 days from 9th to 31st January 1893, and appoints, subject to the approval of the Principal, Coimbatore College, M.R.Ry. Pallipalayam Krishnayya to act during his absence in the Probationary class.

THE INDIAN**JOURNAL OF EDUCATION**

Vol. VII.
(New Series)

FEBRUARY 1893

[No. 74]

The Editor begs to remind all LITERARY correspondents, as well as publishers forwarding books, magazines, etc., for review, that, to ensure attention, they should be addressed to him at PACHAIYAPPA'S COLLEGE, MADRAS; and, for publication in the succeeding issue, should reach him not later than the 20th of each month. All BUSINESS communications should be addressed to the Publisher.

EDITORIAL NOTES.

When an old Journal appears under a new name and with a new Editor, some words of both retrospect and prospect, at least explanatory if not apologetic, will be looked for by its readers. The change of name marks what may be destined to prove a memorable epoch, not only to the limited *entourage* of the Journal, but in a wider circle. It shows that an attempt will be made to supply a want which is not acutely felt only because its magnitude has never been realized. Surveying the multitude innumerable of Educational and Pedagogic Journals issuing from the presses of England, the United States, and Canada,—to name only English-speaking lands—one cannot but be surprised that a country wherein there is so much—some say, too much—scholastic whirl and go as in India, should possess no cosmopolitan organ representing the many varied departments and dealing with the many allied interests summed up in the word "Education".

If the gap is to be filled by any existing publication, the Madras *Journal of Education* may, without incurring any reasonable charge of presumption, consider itself the most worthy to step in. It has outlived many a contemporary and is the hoariest of all. In fact hardly one has been able to continue in existence, even with the assistance at times rendered by Government departments. It is by far the largest; its scale and scope is most ambitious. And a new Editor may be allowed to say for it, what it dare not say for itself, that it has always in the past been conducted with conspicuous enterprise, vigour, and ability.

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Pleasant enough in one way, this last reflection is rather a serious one for the present Editor. He has not only to maintain the Journal at the high-water mark of excellence it attained under the Editor who has just retired. That would be task enough; but he has further to endeavour, as has been said, to rise above the merely provincial and to supply the varied fare demanded by a cosmopolitan audience. However,—although he cannot claim to be endowed with the wide knowledge of pedagogics in many lands possessed by the last Editor, nor to have suffered the long experience of India's wants and ways that former Editors had undergone,—he hopes by strict attention to business—in the spare moments of an otherwise busy life—and an earnest endeavour to meet the tastes of all customers—who shall not be too exacting—to merit a continuance of the support of its old friends and to enlist that of many new patrons.

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As far as the former are concerned he has one point in his favour, he does not come before them as quite a stranger; rather he hopes as an old friend. It is indeed only five years since the *Observer* last made his bow to the readers of the Journal, not certainly because they had evidenced any desire to see him strut no longer upon the stage. It was positively a last appearance, for private grounds; but like Sims Reeves, Gladstone, and other last appearers, he found the temptation of returning once more to the journalistic field too strong for resistance. But five years brings many a change in the Queen's Eastern Dominions, and the changes are all the more noticeable when the quinquennium pushes one over on to the wrong side of what may fairly be called the Anglo-Indian's

grand climacteric. The landscape looks very different when one is going uphill in the morning from what it does when coming down after noon. One begins, not without a shade of regret, to feel some sympathy with what one was wont to consider the senilities of old age; and to meet with a somewhat sterner if reluctant reprobation the fiery onslaughts of headstrong youth. Yet he hopes to be able to interest his readers,—even at times *desipere in loco*,—and should occasion arise for actual warfare will endeavour to show that there is life in the old Journal yet.

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With regard to the Journal proper, it will be both Pedagogic and Educational. By the former we mean what refers specially to the teacher and his art. Writing and theorising on this subject may, indeed, be greatly overdone, and in any case interests no one beyond the circle of teachers themselves. But, although the profession must always bulk largely in our pages, yet we appeal not only to teachers but to students, managers, and the great mass of the public, who do take, or are inclined to take, an interest in our work. The whole system of organization of Schools, Colleges, Universities, Inspection, and the Department, and the relations of education to Government and to the social and economic conditions of the peoples of India, come under the wider name of "Educational", demanding and deserving explanation or discussion. They need this all the more because among large sections of the general public the many great problems, no less than the minor administrative details, are not only generally misunderstood but very frequently misrepresented. We shall then endeavour, first, to furnish news,—news likely to be interesting, or felt to be important, and in all cases up to date. Arrangements for making the news department thoroughly representative of all India are in rapid progress, but it would be premature to say more at present. Leading articles and papers either by Indian experts, or, on professional matters, from our American and English exchanges, will form a second portion of every number. Subjects of passing interest will be touched upon in the Editorial notes. With regard to these we may say now that though the Editor will be fully responsible for every word appearing in them, it will not follow that they will all be written by his own pen. Truth is not all written by the high priest of the goddess, though popularly supposed to be so; and

thus—*longo intervallo*—the Notes in the Indian Journal of Education are not to be assumed to be always the *litera manuscripta* of the Editor himself.

With reference to publication, every effort will be made to bring out the Journal on the 5th of every month. It was very late, unavoidably, in January; and will be late again, also unavoidably, this month. By keeping in future a good stock of standing matter and having efficient sub-editorial assistance, we hope to behave better in future. In case some say, 'Why not the 1st?' we may mention that the various monthly Educational and Literary Periodicals reach this country, the English past the middle, and the American towards the end, of the month; and it is not possible to get their news extracted and the Review of Educational Reviews prepared, by the 1st.

At this season the thoughts of all men and boys turn, not always lightly, to the Boards of the Senate House. The results of the First Examination in Arts scarcely call for comment. The pass was slightly better—about 2 per cent.—than last year, and the figures given in our 'News and Notes' show that the number of candidates has been stationary during at least four years. No conclusions can be drawn until the failure list is published, but it would appear as if the 20 per cent. minimum in one subject had not benefited so many as it was expected to help; or at least as if the advantage gained therefrom had not more than compensated for the losses caused by the increased stringency in the other branches.

Something more must be said about the Matriculation Examination. The result may undoubtedly be put down as 'bad'; but we do not know that it is worse than those that had gauged the new conditions and were acquainted with the calibre of the average candidate, expected—and reasonably expected. Before giving way to panic, however, as some people are always inclined to do over every 'slaughter' as they call it, there are some things to be considered.

First, although the pass, 15.8 per cent., was little more than half that of 1891, namely 30.1 per cent., we must go back to 1886 to get another year as favourable as the latter or in which the percentage

rose over 30. Indeed in 1889 it was only 22.6; and 1890 was little better. In the former year too, the F.A. pass was only 17.8 per cent., very nearly as bad as the result we are considering. We do not say such results are satisfactory, or that two blacks in any way make a white—far from it. We merely point out that they occur in the history of examinations—even when no exceptional circumstances are present.

The great fall in the number of candidates is due to the new strict regulations for admission to the examination, coupled with the incidence of the new Madras Educational Rules upon Government and Aided Schools. These two causes have co-operated to produce what most qualified persons deem a very healthy change in High School organization. This is a matter which, if we may judge from what appears in the press, is very imperfectly understood, and may therefore be profitably dwelt on a little. The candidates were composed of two classes, those who produced the new certificate of having read for twelve months in the highest class of a High School, and those who obtained special exemption from the production of that certificate. The exemptions were, it is believed, granted on the present occasion, being the first, with considerable liberality, and rightly so granted. It is supposed that about 1,000 were thus exempted; the vast majority being failed candidates of previous years, who, coming up for a severer test without any special preparation, could expect nothing but failure. In fact in 1891, when the total percentage of passes was 30.1, that of private candidates was 12 and of school candidates 37. In 1889 when the total percentage was 22.6, the respective figures were 8 and 28; and so for any year. Now the pass list shows that only 27 'private' candidates were successful, i.e., under three per cent. Thus if we make allowance for 'private' candidates, absentees, and disqualifications, we may safely calculate the passes of qualified school examinees at about 22 per cent. The heavy fall in the number of passes of 'privates' marks the increase in the severity of the examination, and makes the figures for the schools appear all the more respectable. We have now to answer two questions, Why was the absolute number of school candidates so low? and Why was their quality so poor? as the figures we have given indicate.

In answer to the former question we note first that candidates can come up with the twelve months' certificate, only from recognised schools. And here, by the way, we suggest the advisability of the University publishing a list of such schools in the Calendar. Recognised schools cannot under the new rules be conducted without considerable expense, and thus, although the Fee Notification has been abolished, they are compelled to charge fees sufficiently high to prevent many who crowded the old adventure schools, from attending any school whatsoever. But this is not all. The new organization introduces an additional year into the High School course, extending it from two years to three. The problem before the schoolmaster at the end of 1891 was this, What am I to do with my Fifth Class, that would in ordinary circumstances become the new Matriculation Class of 1892? Am I to keep it as Form V., or promote it to Form VI., or split it into two, putting only the best boys into the highest Form? In view of the raising of the standard of the Matriculation Examination, the first was the most logical and judicious course and was adopted in many schools, whence, accordingly, practically no candidates appeared at all. Its disadvantage, as well as that of the second plan, was that it left a blank year in the curriculum, which would run through the whole University to the Degree Examinations. Accordingly the last course was widely adopted, the best boys were promoted to the highest form, and thus we shall have two lean years instead of one of complete famine.

It will thus appear that the actual numbers were much reduced, but it follows that the quality was also inferior, for even those best boys that were permitted to appear had been in training for only two years, whereas the new curriculum is deliberately designed to require from the average youth three years' preparation. To our non-professional readers we may point out that these changes consist (1) in making the English Syllabus more thorough, (2) in introducing a separate minimum for science, and (3) in raising the minima all round, from 33½ per cent. in English to 40 per cent., and from 25 per cent. in each of the other branches to 35 per cent. Thus it will be seen that the difficulty of the examination is very substantially augmented.

But after all the important question is not, How many candidates appeared? or How many survived the ordeal? but, Are those that did pass 'qualified to enter a University course'? to use the words of the certificate which every ordinary examinee must now produce. And as a subsidiary interrogation, Does the examination by its severity exclude any appreciable number who are so qualified? Experience showed that the old examination passed hundreds yearly who were not and never could become qualified; and who if they entered on a University course were lured to do so by the false pretence of the University who admitted them. The University deliberately and wisely determined that this state of things was wrong and undignified, and must stop. The new scheme, not perhaps perfect in all details, not perhaps satisfactory to everybody, is yet the result of the deliberations of the aggregate wisdom of the University; and hence it must be given a fair trial. There is nothing certainly in the result of the recent examination on which to ground any clamour for change. And besides, in the often repeated monition of one of our oldest senators, "It is fatal to the plant to be always pulling it up to look at the roots." Give it a chance.

We advise all grumblers to read Sir Charles Crosthwaite's address to the Allahabad University, where he claims a diminution in the proportion of passed candidates as evidence of a higher standard of efficiency.

Speaking of the University, we would refer to the fact of speeches being delivered at Convocation by the Chancellors of the Universities of Calcutta and Allahabad. These are in addition to the speeches delivered by the Vice-Chancellor or other orator. We certainly do not wish to abandon the Madras custom of selecting some more or less distinguished educationist to deliver each year a Convocation address, a custom that introduces variety and vigour into the ceremony. But we see no reason why these lucubrations should not be supported, as in the other Universities, by a speech from the Chancellor himself. It would not only add dignity and importance to Convocation, but afford a formal and fitting opportunity for unburdening the gubernatorial mind upon problems of educational polity. At present a Governor either

remains dumb or has to seize the occasion of presiding at some school prize-giving for liberating his mind upon what in its ultimate effects is perhaps the most important branch of his administration.

Another point we observe is that at the northern Universities some order and decorum is observed in the procession with which the proceedings open. The general order seems to be, first the Registrar, second the members of the Syndicate two and two, then the Vice-Chancellor, then the Chancellor with his staff, and finally the Fellows two and two. The way in which the Madras Senate precipitates itself into the Senate House certainly lacks dignity, and looks more like a pack of hounds after a fox, the Registrar being the fox. Surely if such functions have any reason for existence at all, the same reason should dictate their being conducted with due decorum if not impressive solemnity.

Another puzzle to many fellows seems to be—What to do with the Academic cap? Surely all Academic custom demands that the cap should be kept on the head during the continuance of the ceremony in which the wearers appear in their administrative capacity. But in any case let one rule be observed, and let us not find some caps on and some off, while others vibrate tremulously between the owner's head and hand.

Surely—looking at the question generally—if Academic costume is to be worn and if the teacher's profession is to be respected, we should endeavour to wear the livery of the muses with pride and not with shamefacedness. We can never exalt the profession until we exalt ourselves. We came across a paper by a teacher the other day, in an examination specially instituted for teachers, where the popular idea was set down with painful brutality. He said, *inter alia*, that no teacher should be asked to wear his gown while teaching as it served as a constant reminder to both pupils and master of the wretched condition to which a man must be reduced before he becomes a teacher; and added that a Matriculate in a Government Office drawing Rs. 15 *per mensem* was looked on with greater respect than a B.A. and L.T. drawing ten times that sum. We fear there is much truth in this.

We desire to direct our readers' attention specially to the full and interesting report of the recent competitions of the Madras Physical Training and Field Games Association. We do not say that they leapt at one bound back to the position they held some eight to ten years ago. It is impossible to recover from the down grade so quickly as that. But they recuperated sufficiently to put us fairly in mind of old times, and to convince us that the Association, run with all the go and tact—we had almost said blarney—of its new Secretary, is bowling merrily along the path to renewed success.

The success will be the more assured, in that attention and money can now be devoted wholly to sports and the annual competitions. The transfer of the Physical Training Establishment to Saidapet is to be looked upon, not as the relief of the Association from an incubus, but as marking the completion of one of the great objects with which it was founded. To have rendered the gymnastic instructor a regular and indispensable member of every school staff and to have trained and certificated the hundreds of instructors now scattered over the country, is proof enough that in this department the Association had reached the high-water mark of performance. In fact the work had grown too big to be undertaken by any private body; and was very properly transferred to the big incubator at Saidapet to hatch out certificated gymnasts along with its other young pedagogues. After all, Physical Training is a part, and a most important part, of education. That is indeed a truism, but it is equally true that those who devote much time, labour, and even money to its promotion, receive scant recognition of their services. We hope Mr. Quinn's services will not be left without reward—the only reward they can bestow—by the Government and the Educational authorities.

Quā sportsmen, we might descant upon many things in connection with the 'Madras Week', but we must at present confine ourselves to a few reflections upon cricket. The first is the great lack of batting form and power upon the part of our native teams. Admirable bowlers, first-class fields, and most judicious in the tactics of the game, they are as batsmen simply nowhere. They cannot play strange bowling, they can hardly play,—they certainly

cannot score off—their own bowling. The punishment of loose balls is unknown. Much might be done by the engagement of a professional for four or five months in winter. At home, when cricket goes out and football comes in, many thoroughly sound players, accustomed to act as groundmen or to train school teams, are left without an engagement until spring. A man of this stamp could be easily found willing to fill up his spare time, keep in practice, and 'make a bit', by taking a trip to India, returning in time for Easter and English cricket. There are sufficient first class Colleges in Madras whose combined subscriptions, supplemented by a donation from the Association, would suffice to cover the expenses. The arrangements might safely be left to the management of the Association.

The next great want is the lack of a suitable ground. There is a capital field lying to the west of the Presidency College, supposed to belong to that College but hardly at all used for its legitimate purpose. At a comparatively small expense in preparing pitches, &c. it might be made a first-class ground. Why should it not? and why should it not be a general ground for inter-Collegiate matches or approved matches in which Colleges are engaged? We should strongly recommend the Secretary, Mr. Quinn, to apply to Government to have this ground handed over—under necessary restrictions—to the care of the Association, which would thus have its own ground, on which not only its cricket but its other sports could be conducted. A fairly level path surrounds the ground, which could easily be made into a first-class running-track. There is also plenty of room for takes-off for the jumping competitions, and for putting the shot. The Gymnastic apparatus in the People's Park has been sold; and the Association must go a-begging in any case for permission to use that belonging to some College. The Presidency College Gymnasium and Tennis Courts abut on the ground, and the Principal would probably be glad to lend them for the annual competitions. The building now in the Park enclosure could be transferred to Chépák—we doubt not its original donor, Raja Sir Savalai Ramasawmi Mudaliyar, would with his usual munificence see to this. The Association would thus have a ground open, under proper regulations, to all College and School Clubs who affiliate themselves

43

to the Association and pay the affiliation fee fixed by it. His Excellency the Governor took much interest in the late sports; he could do nothing more popular than see to transforming this field into a *Fenner's* for Madras; and thus make his name memorable by providing an inexpensive but indispensable complement to his predecessor's Free Library.

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The first issue of the *Harvard Graduates Magazine* contains an account of the annual dinner of the *Alumni* of that University, at which the President, Mr. Eliot, made an able and interesting speech. In reporting that several lecturers had refused calls to other institutions at an advance of salary, and that three persons had accepted posts to Harvard at a lower salary than they formerly received, Mr. Eliot said:

"Why is this? Probably the same reasons do not influence all of these gentlemen, but I have learned by talking with them some of the reasons which affect them all. One is the dignity, age, and stability of this institution; another is the perfect freedom of opinion which here prevails; another is the experience and habitually considerate practice of the governing boards. Our teachers are men of consideration; receiving great respect in this community. Another is the important collection of books which here is accessible to all teachers and scholars, with a freedom unexampled, I believe, in the world. Another, and this was told me but lately by one of the younger men, is the sense that a man here may be a critic of the governing boards of the administration, of the majority in his faculty—may be a strenuous opponent of measures which commend themselves to the administration of the majority, and yet he will never for a moment be suspected of disloyalty to the institution."

This, as the Editor of the *Educational Review* remarks, surely describes an 'admirable academic atmosphere'. It is an atmosphere we may well hope to breathe some day in Madras, where, we fear, we have always been too ready to 'sit upon' any one—especially if we can dub him 'griffin' or 'local B.A.'—who ventures to propound views unacceptable to the majority. Independence of thought is not necessarily inconsistent with the staunchest loyalty.

Professor Eliot's ideal University of the future, is that, to which advanced educationists in more than one country seem to be gradually tending. "I think", he said, "that we may fairly say that we are now well on the way to the complete organization of a University in the true sense: a University based upon a large body of strong, well-organized, various, secondary schools; a college and a scientific school, which by their requirements for admission set the standards of the secondary schools; and then professional schools, which by their terms of admission set the standard and lend support to all colleges and schools of science." This ideal is, as far as organization is concerned, not new. There were of course no technical schools, and the professional colleges or faculties were confined to Theology, Law, and Medicine; but the Scotch system in the good old days was exactly that described as ideal by the Harvard President. The bursary or other entrance examinations to the Arts Faculty set the standards to the Parish schools; and the Arts degree was an indispensable preliminary to a course of study in the other faculties. Of course all that went out with fast-days and other old Scotch customs, when organs and Sunday trams came in; but it is the organic whole of Knox and Buchanan, with a technical side added, that is the ideal of America to-day. It looks as if in Education at least, 'Back to Knox!' were to be the world-cry.

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By association of ideas we are reminded here that the Institute of Scotch Teachers held a very successful Congress at Paisley in the first week of the year. The reason of the Congress visiting the 'bodies' for the first time was to celebrate the centenary of David Stow, 'the greatest educationist Scotland has produced since the days of John Knox', who was born in Paisley in 1793. Stow was the founder of the training-school system and originator of the normal colleges for teachers. Not a teacher himself but a business man, he was the Spencer Wilkinson of pedagogy, and his memory was duly honoured in his own town.

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The Institute was received by the Provost, the Sheriff, and the local authorities, dressed in their official robes and insignia, while the authorities of the Institute also wore their official robes—for 'the gown' is not such an object of animosity on the Clyde as it

is on the Coum. The Presidential address was delivered by Professor Young, in which he reviewed the history of Education from the days of John Knox, (we are almost afraid to mention his name again, but what can one do when dealing with a Scotch Educational Congress?). He showed that the whole tendency of present-day legislation was to come back to the ideas of that reformer,—graded instruction and the organization of teachers as servants of the State. We hope both Scotland and England will get back in time to help America in putting some drag upon India's progress in the opposite direction.

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We can at present do no more than give the subjects of the more important papers, hoping to return to them at a time when there is less press of examinations, Convocations, and the like. "Technical Education" was the subject of interesting papers by Mr. R. Caird, shipbuilder, and Mr. J. G. Kerr, Headmaster of Allan Glen's School, Glasgow. Their drift is sufficiently evident from the Resolution passed; "That this Congress is of opinion that ample provision should be made by means of Government grants for the advancement of technical education, in respect of its being a phase of Secondary Education, bearing directly upon the prosperity of Great Britain, as a commercial, manufacturing, and industrial country; and that County Councils, Town Councils, and School Boards should aid in every possible way the training of our youth in Drawing, Mathematics, and the principles of Science, as essentials in any scheme of Secondary Education." Then followed "Brain Action and School Work" by Professor Calderwood of Edinburgh University, and "On Secondary Education in Rural Schools" by Dr. D. Ross, Principal of the Church of Scotland Training College, Glasgow.

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The proceedings wound up with a Conversation and a Ball, at which the graduates, including the Lady Licentiates of St. Andrew's, appeared in all the paraphernalia of robes, hoods, caps, and badges.

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We have received a letter referring to our remarks upon 'Education in Ceylon' in the Journal for January, from a gentleman who, as a member of the Philosophical Society, takes a deep in-

terest in the subject. We cannot publish the letter as its tone is unsuited to our pages, but we have no objection to supplement our article by pointing out that the real hardship seems to be created by what is called the 'Quarter Mile Clause'. By this clause recognition and aid is refused to a school started within a quarter of a mile of an old established and efficient school. There is no doubt that in populous urban localities where the Missionaries have pre-empted the best and most central sites, this condition may act so as to give them a monopoly of education. We have had the advantage of an explanation of the present state of affairs from Col. H. S. Olcott, and we must believe that in some cases the new Buddhist schools are placed at a serious disadvantage. We understand, however, that the matter is *sub judicio* of the Secretary of State for the Colonies; and Lord Ripon may be trusted to give an equitable and reasonable decision.

A curious craze has spread to England. Some one having mentioned the custom referred to in an article in a recent Journal on *Education as a means to Patriotism* (October 1892, p. 573) that in American schools the American flag hangs over the master's desk and that he now and then gives little lessons on it—there arose an immediate struggle of patriots for the honour of introducing a similar laudable custom into the London Board Schools. The most valiant epistle, and the most practical—because backed up with £50 for the purchase of flags—was sent to the chairman by the Earl of Meath. He says:—

"I should be the very last to wish to encroach for one moment on the time devoted to Religious Instruction, but is that really the only opportunity which could be found during which the master could re-call some inspiring memory connected with the flag, or recite some heartstirring passage or poem, such as Tennyson's 'Defence of Lucknow', with its noble refrain—'And ever aloft on the topmost tree the banner of England flew!' Might it not be possible, say, on the first Monday in each month, to spare ten minutes from secular work after the religious instruction, to give the young Briton some notion of the mighty heritage and glorious traditions which are his birthright?"

Our contemporary *The Schoolmaster* waxes merry over this:—

"This is all very pretty, but if we are going in for patriotism, for goodness sake let it be of the right sort. Let the youngsters learn to cherish, respect, and develop aright those great democratic institutions for the

conservation of which their forefathers fought and bled, but don't let us have a revival in favour of Insular prejudice, Fillibusterism, and the bad old Imperialism which clave a Spaniard in twain to the Glory of God and His Majesty the King, and found popular expression in the doggerel

"Two skinny Frenchmen, one Portugee,

One Jolly Englishman's a match for all three!"

A flag over the master's desk is, however, a very mild obullition of American patriotism. We find in the *New York School Journal* an account of the 'Patriotic Election', held yearly in the schools of the Children's Aid Society, New York. The children are children of immigrants and their parents represent no fewer than twenty-three nationalities. The ballot paper was contained in an envelope on which was imprinted "To learn how little Americans should be trained for American Citizenship, look Inside". On the back of the ballot paper was printed the following confession of Faith.

This country in which I live, and which is my country, is called a REPUBLIC. In a Republic, the people govern. The people who govern are called Citizens. I am one of the people and a little Citizen.

Our REPUBLIC is made up of 44 States, and the people in these 44 States taken together are called THE NATION.

The way the Citizens govern is, either by voting for the person whom they want to represent them, or who will say what the people want him to say,—or by voting for that thing they would like to do, or against that thing which they do not want to do.

The Citizen who votes is called a voter or an elector, and the right of voting is called the suffrage. The voter puts on a piece of paper what he wants. The piece of paper is called a Ballot.

THIS PIECE OF PAPER IS MY BALLOT.

My citizenship comes from THE NATION, but the suffrage is given me by my STATE.

The gift of citizenship, the right to vote; the right to say what the citizen thinks is best for himself and all the rest of the people; the right to say who shall govern us and make laws for us, are GREAT PRIVILEGES; to vote is A VERY GREAT RESPONSIBILITY, which I must learn to exercise conscientiously, and to the best of my knowledge and ability, as a little Citizen of this great AMERICAN REPUBLIC.

We should note that the question was, "Shall this school continue to salute the nation's flag every day at the morning exercises for another year?" Fortunately, so potent had been the patriotic teaching, that only 60 voters out of 5,705 had the temerity to 'vote

against the flag'. Should the mania spread to India, it would be curious to see what manifesto the Director of Public Instruction would sanction as appropriate for a little DRAVIDIAN CITIZEN of a great ARYAN EMPIRE.

THE GOVERNMENT TECHNICAL EXAMINATIONS.

The long expected Notification re-organizing these Examinations has appeared. We note the more important points.

1. The Examinations are to be in three grades, (1) Elementary, (2) Intermediate, (3) Advanced.

2. There are 82 subjects coming under 19 heads. Of these subjects 25 are provided with examinations in all three grades, 6 have Intermediate and Advanced, 27 have Elementary and Intermediate, 21 have Intermediate alone, and one has Advanced alone.

3. Group certificates are awarded for passing in all the subjects comprised in each of the following groups. 1. Building Construction, 2. Machine Construction, 3. Mechanical Drawing, 4. Surveying, 5. Hydraulic Engineering, 6. Bridge Construction, 7. Sanitary Science, 8. Electrical Engineering, 9. Drawing, 10. Letterpress printing, 11. Book-binding, 12. Correspondence, 13. Book-Keeping. The main idea of the *Group* is that the student must pass the Intermediate stage in the leading subject or subjects, and the Elementary stage in the subsidiary subjects.

4. For the *Diploma* the student must pass the Advanced stage in the principal subjects and the Intermediate in the allied branches. Diplomas can be obtained in 1. Agriculture, 2. Veterinary Science, 3. Electrical Engineering, 4. Drawing, 5. Commerce.

5. Candidates passing in any subject will be granted a certificate.

6. The candidates may be:—

(i). All persons that have passed the compulsory portion of (a) The Lower Secondary Examination for the Elementary grade, or (b) the Upper Secondary for the Intermediate and Advanced.

(ii). Pupils of *recognized* Technical Schools or Glasses.

(iii). Employés of Government, Local Boards, or Municipalities who have to pass these Examinations as *Special Tests*.

(iv). Persons specially permitted by the Commissioner.

7. The Fees are for each subject (a) Elementary, Re. 1, (b) Intermediate, Rs. 4, (c) Advanced, Rs. 8. These Fees make the cost of a Group certificate average from Rs. 10 to Rs 15, while that of a Diploma will be, Agriculture, Rs. 36, Veterinary, Rs. 24, Electrical Engineering, Rs. 32, Drawing, Rs. 24, and Commerce, Rs. 28.

8. The Examinations will be held for some subjects in April, for others in November.

9. The Examinations in each group of allied subjects will be conducted by a Board of Examiners appointed, with their chairman, for three years. This is a very important provision, calculated to ensure the uniformity in the standards that has been so conspicuously absent from these examinations.

No information is given as to when the Revised Syllabuses may be expected.

MADRAS CIVIL ENGINEERING COLLEGE.

The presentation of prizes and diplomas to the students of this College, took place on the 3rd inst. in the hall of the College, with Sir H. E. Stokes in the chair. We reserve any notice of the Report until we have it before us in a complete form, but must join in the general congratulations to Major Love, R.E., on the immense strides both in numbers and efficiency that this College has taken since its re-organisation. Many of the remarks made by the Chairman, whose speech we append, have an interest and application for others than those to whom they were specifically addressed.

Sir Henry Stokes said that they must all be gratified with the results of the past year's work as set out in the Principal's Report. They showed that the impetus that was given to the College, by the re-organisation that was carried into effect about five years ago, had been fully maintained. In the year 1888, the strength of the College was only 112, and at the end of the first year, after the re-organisation, the numbers were more than doubled, one third of which was due to the 'introduction of the artisans' class—an experiment which was a very interesting one, and which he was glad to say had been found successful. He noticed with regret, that there was hardly any increase in the Engineering division, which was the highest division in the College. In training Engineer subordinates, Draftsmen, and Surveyors, the College had

done a work of great utility. During the past two years a great deal had been done to develop and promote the efficiency of the College,—the construction of that fine building in which they were assembled, the re-organisation of the staff, including the appointment of two European Professors in Engineering and Mathematics, the revision of the curriculum, the reform of the system of examinations, and the extension in practical work. Most of those improvements were in a great measure due to the persistent advocacy of the Principal and to his good work. The Government, in addition, was constructing a large and fully equipped workshop for the use of the students, at a cost of more than half a lakh of rupees, and that, he had no doubt, would enable the teaching to be made more practical than it had been hitherto. He was glad to note that a fair proportion of the Engineer students received training in Mechanical Engineering, thereby showing that they intended sticking to other than official employment. In reading the history of the College, compiled by Major Love, one would be forced to the conclusion that the College had suffered in the past by too intimate connection with, and dependence upon, the Public Works Department. In earlier days when the Engineering works of the country were entirely departmental, such subordination was unavoidable and justifiable; but he thought that that necessity existed no longer. With the extension of railways and the use of machinery all over the country, with the organisation of public works in native States, with the great extension of engineering operations, conducted by local and municipal bodies, he thought that the prospects of departmental employment should cease to preponderate as attractions to students of that College. The Public Works Department, was, after all, a small body, and he had often noted with surprise, year after year, in the reports of that College, how great an importance was attached even to minor changes in the rules of that service, and how such changes were cited as the causes for the fluctuations in the strength and prospects of that College. At any rate he hoped that the increase which had been observable in recent years was due not to causes of that kind, but to improvements in the College itself, and to the better equipment of scientific knowledge which the students who now left the College took with them. At present there were throughout the country a large number of European engineers and subordinates

of sorts, some with very little training; and he could assure the audience that the employers of that labour, when they found that well-trained men could be had at a cheaper rate, would substitute that agency for the one which they now employed. That process of substitution, he thought, be greatly accelerated by the fall in the value of the rupee which, while it scarcely touched the Natives at all, was a vital matter to Europeans, and must soon make it impossible for them to live in this country upon the salaries which they now received. He trusted that the railway administration would soon see that they could more cheaply employ Natives of the country, in such posts as Permanent Way Inspectors, etc. It had been suggested that the College certificate should be made an essential condition for admission into the Local Fund Service; but he thought that at the present moment that was impossible, because, as Major Love admitted in his report, the College was at present not able to meet the full demand for Overseers, etc. That being so, to make the rule now would be to place the Local Boards in great difficulty both administrative and financial. But if the College increased in its production, as it was apparently now doing, there was no doubt that the rule would be enacted, possibly in the near future. For his part he always thought that Native agency might be more extensively employed in the higher grades of the Public Works Department, than had hitherto been the case. He was aware that the results of the experiment which had been tried hitherto in this Presidency, were not considered by competent authorities to be altogether satisfactory. But he thought the experiment that had been hitherto tried was on too small a scale to be conclusive; and he believed that the men who had been tried had been mostly trained under the old regime. He knew that in other parts of India many Native Engineers were very highly thought of, and he had recently noted with great pleasure that the construction of a very important bridge on the East Coast Railway had been intrusted entirely to Native hands. He wished to impress upon the authorities of the College that it was their business not to think of this or that particular opening for employment, but to make the College give to the students a complete theoretical and practical training in the various branches of the profession, or to use the concluding portion of Major Love's report—to send out successful students, fully

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equipped for the work which they would have to do. It only remained for him to ask the students to work hard and with honesty, in the interest of their employers, and remember always that they had to maintain as well the reputation of the College as the honor of the profession which they had chosen.

CONVOCATION OF THE CALCUTTA UNIVERSITY.

The following extracts from the speech made by the Viceroy at the Calcutta Convocation deal with three subjects of far more than local interest:

ELECTION OF FELLOWS BY GRADUATES.

I have, on these occasions, more than once said a few words to you with regard to the election of Fellows of the University. It has, as you are aware, been my object gradually to reduce the number of the Senate, and to avoid conferring Fellowships upon gentlemen unconnected with this Province, or otherwise unlikely to take a useful part in the affairs of the University. In pursuance of this object, we have, during the past four years, only filled up a portion of the vacancies which arose. At the end of last year there were 14 vacancies, and of these, only nine have been filled up.

Then you will remember that, ever since 1889, I have asked the Graduates of the University to assist me in selecting some of the new Fellows. During the last three years two Fellows per annum have been appointed on the recommendation of the Graduates. On the present occasion the number has been increased to three, and this has provided an opportunity for allowing the Graduates to elect, for the first time, a member of the Medical Faculty. I am glad to say that I have been assured by the Vice-Chancellor that the three gentlemen who have been elected are likely to fulfil, in respect of their character and qualifications, the expectations with which I resorted to this mode of selection for filling up a portion of the vacancies in the Senate.

This leads me to mention that during the past year I have had a good deal of correspondence with gentlemen interested in this matter both upon the subject of the qualifications of candidates for election, and also as to the qualifications of those Members of the University by whom the Fellows are elected under this new arrangement. It was represented to me, and I think with good reason, that under the rules in force, some gentlemen, in all respects deserving of the honour of a Fellowship, were not eligible for it, and also that the rule which restricted the franchise to M.A.'s, or the holders of equivalent, or higher degrees, operated hardly with regard to some of the senior B.A.'s who had graduated before 1867. We have introduced certain changes in order to extend the qualification in each case. Under the present rules, candidates for election must be (1) in the Faculty of Arts, M.A.'s or B.A.'s who graduated before 1867; (2) in the Faculty of Law, holders of the D.L. Degree; (3) in the Faculty of Medicine, Doctors or M.B.'s of ten years' standing; and (4) in the Faculty of Engineering, Masters or B.C.E.'s of ten years' standing. The electors, on the other hand, must be either M.A.'s,

or holders of equivalent or higher degrees, or B.A.'s who graduated before 1867. I have dwelt upon this subject, because it is, I think, a good illustration of the necessity of proceeding experimentally when dealing with these somewhat intricate questions.

ELECTION OF A MEMBER OF COUNCIL BY THE SENATE.

There is one other observation which I should like to make with regard to the Senate of the University. It seems to me of special importance that we should have a strong and thoroughly representative Senate, because it is by no means impossible that the Senate will, before long, have a novel, and most important and responsible function entrusted to it. It is, I think generally known that we are now awaiting the Secretary of State's official sanction to the introduction of new regulations, under which both the procedure and constitution of the Legislative Councils will be materially altered. This is not the occasion for a disquisition upon this momentous subject. You all know that our object is to render these Legislative bodies more representative than they have yet been, and to give a wider scope to their utility by increasing their opportunities for taking part in public business.

We have proposed—and I shall be disappointed if our proposal is not accepted—that the Senate of this University should be allowed to select one of the Additional Members of the Bengal Legislative Council. I have sometimes heard it said by strict educationists that it was desirable that educational institutions should have as little to do as possible with politics, and that it was consequently a grave mistake to allow Indian Universities to enter the political arena. That is no doubt, on the face of it, a plausible view, but it is one which a closer examination of the subject has led me not to accept. In the first place, it seems to me most important that what I may speak of as the literary class of the Indian community should not be misrepresented upon the reconstituted Councils, and I know of no quarter to which we can have recourse for this purpose with more likelihood of success than the Universities. I feel sure that they will exercise their choice with circumspection, and will give us Members likely to enhance the reputation alike of the Councils and of the Universities. As for the objection to encouraging Members of the University to meddle in political questions, I have a shrewd idea that nothing which we can do, or leave undone, will prevent them from interesting themselves in such questions, and that every one will gain if we give them a regular and legitimate opportunity of making themselves felt as political factors.

HOUSING OF STUDENTS.

There is one other matter about which I should like to say a few words. Some of you may recollect that when I addressed you here last year, I spoke with some anxiety of the position in which a great many of the students of the University find themselves when they come up to Calcutta to prosecute their studies. I dwelt upon the difficulties encountered by a merely examining University in dealing with a question of this sort, and I expressed a hope that some efforts might be made to provide for the moral supervision of the students, for the improvement of their surroundings, and for the

promotion of healthy physical exercises and recreation. I expressed my approval of an Association which some friends of the University had lately created for the promotion of the higher training of young men. The subject is full of difficulty, and it was not to be expected that much would be achieved by this Society, or by any other within a short time. I am glad, however, to know that the matter is still receiving attention. It has been dealt with in a most able and suggestive manner in a recently published Resolution of the Bengal Government, which should be read with care by all who have not yet seen it. I rejoice to find that Sir Charles Elliott, then whom the students of this University have no warmer or more sympathetic friend, has given the weight of his high authority in favour of the doctrine that the relations of the Principals, Professors, and Teachers in Government Colleges and Schools to their students ought not to begin and end in the lecture room, and that he has spoken in terms of well-merited commendation of those members of the Educational staff who have "devoted themselves to joining their boys both in athletic games and in intellectual pursuits which lie outside the ordinary curriculum of the University". I feel no doubt whatever that His Honour is right when he says that "the kindly leading and influence thus exercised does more to train up the students to be gentlemen and scholars, useful citizens, and loyal subjects of the Queen, than a wilderness of moral text-books could do".

I hope that it may not be found impossible, either by private agency or by the University itself, to exercise some supervision over the quarters in which the students are accommodated within the great city. We all know that in the animal kingdom, fishes, birds, and insects are found frequently assimilating their form and colour to the natural objects by which they are surrounded. I believe it would be thoroughly in accord with scientific precedents that a lad who finds himself domiciled in a dirty, or disreputable, portion of the town, should run an extremely good chance of becoming himself unclean and disreputable. It does not seem to me to be at all beyond the limits of possibility that if we cannot go the length of providing proper hostels, or accommodation, for the students, we should at least insist upon the keepers of the lodging houses in which the students live taking out a license, which might be withdrawn from them if their premises were kept in a disorderly or objectionable manner.

SHORTHAND FOR EVERYBODY.

Shorthand plays so important a part in the complicated activities of modern life, the benefits that it confers upon society collectively and upon men individually are so numerous, and the interests that are bound up with it are so varied, that the subject opens up in every direction endless vistas of thought. I shall endeavour in the course of the following remarks, to direct attention to a few of the more conspicuous and undoubted of these advantages.

49

The first thing that one thinks of when considering the advantages of Shorthand, is that remarkable product of the 19th century, the newspaper reporter. That indefatigable worker armed with shorthand, succeeds in accomplishing things before which the wonders of the Arabian Nights pale into insignificance. A Viceroy or a Governor presides at the anniversary of a college or lays the foundation stone of a bridge or a hospital. Distinguished educationists and other eminent personages deliver brilliant speeches on a Pachaiyappa's Commemoration day or on a Christian College day. The reporters are there. Amid all the tumult and excitement of a meeting it is their business to sit and calmly take down every word that flows from the orator's lips. Next morning, every part of the country, every reader of every daily, is perusing the speech. The electric telegraph gives its valuable aid; it hastens the diffusion of news. But the work is really done by Shorthand. Without it there would be no report to transmit across the wire. The advantages that flow from the diffusion of the speeches of our leading men which Shorthand makes possible are very great indeed. By it, every man is enabled to become well informed upon every question that agitates the minds of eminent thinkers and politicians. In fact, every speaker who has attained a public reputation, finds that through the toil of the reporter his audience is multiplied. Instead of addressing only a few hundreds who assemble to hear him, he talks to the world. This deepens the sense of the responsibility of the speakers and makes them weigh with great care and deliberation what they intend to say.

Besides serving the newspaper, there are other public advantages which Shorthand renders to the community. Our law courts in the city and in the mofussil present a sphere in which the use of shorthand may with advantage be extended. Professional Shorthand writers are often engaged by parties in the suits to take notes of proceedings and verbatim reports of addresses of counsel. No observant person who has visited a law court can have failed to notice the long pauses that commonly occur while evidence is being given. Those pauses are made in order that the judge may have time to scribble down in a frightfully illegible longhand, the statement of witnesses. It is painful to see the snail's pace style of talking down the evidence of witnesses especially in important cases. The magistrates themselves grow tired and not unfrequently lose the thread of evidence, owing to the very slow way in which it is given to suit Mr. Plod-along-longhand, and we often hear magistrates cautioning the witness in these words, "Not so fast please". The waste of time caused in this way is enormous. By attaching to every court an official shorthand writer whose duty it would be to take

down and preserve a record of the whole of the evidence, many a case would be more expeditiously tried.

I now come to the use of the 'winged art' in business. The merchant dictates his letters in one-fifth of the time that it would occupy him to write them. No man of business would be without his shorthand amanuensis. Time is money to every business man, and the quick and certain despatch of one portion of his business leaves him more time to deal with other and perhaps weightier matters. Judges, barristers, solicitors, agents and managers of Railway Companies, merchants, authors, busy editors and in fact every business or profession in which much writing is needed, will not be slow to recognise the value of shorthand and invoke its aid to save time and facilitate work. The student who looks forward to a college career will find a knowledge of the subject invaluable. From the lecture hall it would enable him to bring away much that must otherwise have been lost to him, however good his memory might be. It will enable him to take down verbatim lectures on history, political economy, and moral philosophy, if he should have phonography at his fingers' ends.

Thus the sphere for the employment of Shorthand is widening; and a young man doubles his ordinary value at the first start in life if he should have acquired a knowledge of the subject. It behoves everybody who thinks of entering upon a clerk's life in public offices or private houses of business, to master shorthand. With it he will obtain better pay, and more confidential work with his employer, and if he be a shrewd man he will be enabled to improve his position and to rise to something higher. Apart from its importance as a certain source of occupation, the art is highly favourable to the improvement of the mind. It invigorates its faculties excites invention, improves the ingenuity, and induces habits of perseverance, precision, and vigilance. But in these days of keen competition, when every branch of study is valued according to the amount of money it will put into a man's pockets, this aspect of its utility is likely to be ignored.

The demand for Shorthand in this Presidency is steadily increasing. There is ample room for a very considerable extension of its use. There are the Government offices for instance, where shorthand as yet has scarcely penetrated. Now and then we come across an advertisement in the Gazette, of a District Judge requiring a clerk for his court with a knowledge of shorthand. Great economy would result in public departments, if less time were spent in writing and minuting by highly paid officers. Heads of departments might give individual attention to a far greater share of the work for which they are responsible, if they were to use the nimble fingers of the shorthand writer. So keenly is

the value of shorthand recognised by Mr. H. W. Bliss, that while presiding some years ago at the celebration of Pachaiyappa's Anniversary, he said in alluding to the Commercial High School, that he would urge upon the Government the desirability of making shorthand an indispensable qualification to those that should seek employment as clerks in Government offices. But nothing has yet been done to move Government in that direction.

If I am asked what shorthand one should learn, I would unhesitatingly say Phonography, the system invented by Mr. Isaac Pitman. The term shorthand, is growing more and more to mean simply Phonography. All Phonography is shorthand, but all shorthand is not Phonography. In fact Phonography may be regarded as synonymous with shorthand, not etymologically of course, but with regard to existing circumstances and its comparative universality. Phonography has been included in the list of Government Technical examination subjects, the speed required of those that have to pass the higher examination in it, being 120 words per minute (2 words per second), the average rate of a public speaker. It was reserved to the Trustees of Pachaiyappa's Charities, who have always evinced a laudable interest in furthering the cause of technical education side by side with higher education in this Presidency to first open a Phonography class in 1884 in connection with Pachaiyappa's College, for which they were able to secure the services of Mr. Tom Luker. He trained a batch of students and an impetus was thus given to the spread of Phonography in this Presidency. The shorthand class then opened has since developed into a regular Commercial High School, where Phonography has continued to be taught along with other technical subjects. To suit the convenience of day class students of Colleges and High Schools, and clerks employed in local Offices, evening classes are held in the institution between the hours 5-30 to 6-30 p.m. to give instruction in Phonography. The school has turned out several Phonographers who have secured lucrative employments as shorthand writers in various offices in the city and in the mofussil. This is the only institution in this Presidency, so far as I am aware, where it is included in the curriculum of the school and that trains boys for the Government Higher Examination in the subject, thus affording them facilities to qualify themselves as shorthand writers or reporters. With the exercise of a little perseverance—and nothing can be done without that—everybody who is not a hopeless idiot can master Phonography. Just as the face of education is slowly changing to harmonize its expression with its environments, so the sphere of shorthand is destined to be ever widened and indefinitely increased. Not into one profession or one kind of profession will it be content to enter

but we look forward to the time when as Lord Rosebery said five years ago "Shorthand will penetrate every cranny and crevice of our civilised life."

S. VAIDYANATHA AIYER.

THE MADRAS PHYSICAL TRAINING AND FIELD GAMES ASSOCIATION.

PRESENT POSITION.—A new and brighter era seems to have at last dawned for this Association. After the many gloomy Reports of recent years, and the dismal forebodings as to the possibility of raising sufficient funds to meet the expenses of the annual competitions of last month, it is our pleasant duty to record that the competitions just ended have passed off with unusual success; and that the new Secretary, although appointed rather late to allow of his work being done effectually, has nevertheless been able to collect enough money not only to defray the cost of the recent annual competitions and to pay for all the prizes but also to hand over a substantial balance to the funds of the Association. This is something new in the history of the Association; as hitherto the Sports Secretary has usually been forced year by year to fall back for a considerable sum on the funds of the Association, to enable him to meet the expenses of the annual competitions. Simultaneously with this good news we have to announce that the Association's gymnastic apparatus, now located in the People's Park, and soon to be taken over by Government, has been valued at a fairly high sum, and the proceeds will not be drained away any longer by the costly establishment so long maintained by the Association in connexion with their Gymnasium, but will be available for future annual competitions. Again a half grant is still due from Government from the beginning of the present financial year up to October 1st, when Government took over the training of gymnastic students. Thus on all sides the troubled days of the Association seem to be over, and the present outlook is full of hope.

ANNUAL COMPETITIONS.—i. *Gymnastics and Athletics.*—The Annual Competitions began at 6-30 A.M. on Monday 16th ultimo, at the Gymnasium, People's Park. The Gymnasium was screened off from the road, and as a large crowd sought admission, which was only by ticket, the police had plenty of work on this and the following morning. The Hon. J. H. Garstin, C.S.I., accompanied by Mrs. and Miss Garstin, attended on Monday to see the competition for the cup which he, as President of the Association, has presented for Gymnastics. Tuesday morning's com-

petitions were honoured by the presence of H. E. Lord Wenlock; who, attended by Lord Douglas Compton, A.D.C., came to witness the competition for the Governor's Cup which he has presented for excellence in Athletics. Among the spectators on these mornings were Setupati the Rajah of Ramnad, the Director of Public Instruction, Colonel Moore, Rai Bahadur P. Runganadam Mudaliyar, and Mr. Basil Lavery. Mr. Quinn, the Honorary Secretary, was assisted by the following gentlemen who kindly acted as Judges in the various events:—Messrs. Adam, Michie Smith, Henderson, Paterson, Pittendrigh, and Vijayaranga Mudaliyar. The Band of the 6th Madras Infantry was in attendance during the Governor's visit on Tuesday morning, and discoursed sweet music to the end of the competitions. Most of the events were well contested. Pachaiyappa's College, The Madras Christian College, and the Medical College, Madras, sent in the strongest men. Prizes were also won by the Teachers' College, Saidapet, the Central College, Bangalore Victoria College, Palghat, the Medical School, Haidarabad, Bishop Corrie's Grammar School, and the C.M.O. Asylum, Madras. The Governor's Cup fell to Bhashyam Nayudu of Pachaiyappa's College, and the President's Cup to Ramachandran of the Madras Christian College—both Juniors.

ii. *Native Gymnastics.*—This competition began at 6-30 A.M., on Wednesday 18th ultimo, at the Cosmopolitan Club. The various events were *Thundol, Baski, Kusthi, Kavela, Jodi, Bana,* and *Patta*. Setupati the Rajah of Ramnad, Rai Bahadur P. Ranganada Mudaliyar, and Mr. P. Vijayaranga Mudaliyar acted as Judges. The cup presented by Rajah Sir S. Ramaswami Mudaliyar, was easily carried off by Gopala Raj Urs of the Madras Christian College.

iii. *Lawn Tennis.*—These competitions, also begun on Wednesday morning, 18th ultimo, and held on the courts of the Cosmopolitan Club, kindly placed for the occasion at the disposal of the Association, lasted till Saturday morning, when the finals were played, off. Mr. Higginbotham, the Champion Lawn Tennis player of Southern India, acted as umpire in the final and some of the earlier matches. On the first morning the Central College, Bangalore, easily defeated the Medical School, Haidarabad, the score being 6-1, and 6-3; but had a still easier victory over the Madras Christian College, the score being 6-0 and 6-1. The Central College juniors were also victorious over the Church of Scotland Mission College juniors. Next morning three senior single matches were played. Chitti Babu of Presidency College, beat his opponent of the Central College, but was in his turn defeated by Lincoln of the Medical College; while Rajagopal, the champion of Pachaiyappa's College beat his opponent

of the Medical School, Haidarabad, by two love sets. On Friday morning the Presidency College pair, not without a good fight, bore away the victory from the Medical College, the score being 6-4, 6-3. The Tennis finals were all played off on Saturday morning. A large crowd of spectators daily testified to the keen interest taken in the Tennis competitions. But on Saturday morning all the sides of the courts and the balconies of the Club were thronged with spectators, among whom were Setupati the Rajah of Ramnad, the Rajah of Bobbili, Mr. Ware Austin, C. S., Dr. Crawford, Col. T. O. Underwood, Dr. Henderson, Mr. Paterson, and Mr. Short. Mr. Higginbotham acted as umpire. Rai Bahadur P. Ranganada Mudaliar, Honorary Secretary of the Cosmopolitan Club, was present every morning throughout the competitions before 6-30 A.M., and gave to the Secretary of the Association every possible help that could contribute to make the sports pass off pleasantly and successfully. The first of the final competitions was the junior doubles, to decide the Sir Ramaswami-Ranganadan Tennis Trophy. A new trophy is being made for these competitions by Rao Bahadur P. Ranganada Mudaliar, as this trophy was won outright last year by the High School department of Pachaiyappa's College. A team from the same institution now vainly strove for the new trophy, which has fallen to the Central College, Bangalore. In the next final, the seniors of the Central College defeated the Presidency College pair, not without some very fine play. The last event in tennis was the senior singles, in which Rajagopal of Pachaiyappa's High School met Lincoln of the Medical College. Rajagopal, having come out first for the three preceding years in the junior singles, very pluckily entered the lists this year for senior honours, although still a junior. Victory inclined to Rajagopal, who in the course of the match sent across the net, amidst bursts of applause, two remarkable twisters that bounded back into his own court. Score 6-4, 6-3.

iv. *Cricket*.—The competitions in cricket began on Monday 16th ultimo and ended on the Friday. All the senior matches, except the final tie, were played off on the Camp Equipage Ground, Island. Only two junior teams entered to compete for the Sri Goday Vari Trophy. The Christian College team vainly strove to wrest it from its present holders, the Wesleyan Mission High School, Mysore. The match was played off on Tuesday 17th ultimo, on the Presidency College Cricket Ground, which was kindly placed at the disposal of the Association for this event by Mr. G. H. Stuart. This trophy now becomes the property of the Mysore School, as this is the third time they have won it in succession. For the senior matches, the Secretary had three tents pitched on

the Island—one for the accommodation of visitors and those assisting in conducting the competitions, and one for each of the competing teams and their friends. The cricket from beginning to end was a wretched display, enlivened by very few noteworthy incidents. Every single match, down to the final tie, was hopelessly one-sided, the victorious side always beating their opponents by an innings and a large number of runs. Of the two strong teams, the Christian College scored 191 against the Civil Engineering College, and 162 against Pachaiyappa's College, both of which they were able to do only owing to the wretched bowling and fielding of their opponents. For the same reasons, the Central College, Bangalore, ran up 108 against the Madras Medical College, and 136 against Presidency College. But when the Christian College and the Central College teams met in the final tie for the Brandt-Hutchins Trophy, there was an utter collapse on both sides. Each side had, with only two or three bright exceptions, weak batsmen, but great strength in bowling and fielding; and when they met each other, wicket fell after wicket with miserable monotony, both Captains falling without a single run. This was the only match in which both sides had two innings, and even here the Central College won the trophy from its present holders with 9 wickets to spare. There is but little hope of seeing anything like decent cricket from the School and College Clubs of this Presidency, until they are taken in hand by a trained expert for a few months every year.

The M. C. C. kindly placed the Chepak ground at the disposal of the Association for the final tie for the Brandt-Hutchins Trophy. The Band of the 27th M. I. was in attendance at the Pavilion and played a choice selection of airs. H. E. the Governor attended by Captain the Hon. G. Lascelles, A. D. C., arrived late for the match, but remained to witness a scratch match got up by Mr. Quinn amongst the members of the two teams. One phenomenal event in this match was the fall of five wickets for five successive balls. A large number of visitors, including several ladies, witnessed the play from the Pavilion. The competitions passed off without a single hitch. It is a singular fact that all the four trophies offered for competition by the Association have been won by clubs from the Province of Mysore. Three of them have gone to the Central College, Bangalore, viz., the Brandt-Hutchins for Senior Cricket, the Travancore for Senior Tennis Doubles, the Sir Ramaswami Ranganadam for Junior Tennis Doubles; while the fourth, the Sri Goday Vari, has now been won outright by the Wesleyan Mission High School, Mysore.

RICHARD MULCASTER AND HIS "ELEMENTARIE".

From a Paper read before the College of Preceptors by Foster Watson, Esq., M.A.

Mulcaster was born about 1530, and died 1611. He came of a good Cumberland family, and, as he was not loath to make known, was "esquire born". He was educated at Eton, with Robert Ascham as a school-fellow, under the redoubtable Nicholas Udal, who has gained so much notice for the fifty-three stripes he once gave Tusser, the writer on husbandry. From Eton he went to King's College, Cambridge. Thence he migrated to Oxford, and in 1555 was elected student of Christchurch. In 1558, the year of Elizabeth's accession, he commenced school-master, and in 1561 was appointed first head-master of Merchant Taylors' School at Laurence Pountney Hill. He continued in this post for twenty-five years. During this period he had many bad quarters-of-an-hour with his governors, and on one occasion he confessed before the court of the Company that he had spoken "merely of choler". When he left, it was in not unjustified high spirit at the treatment with which he had met on applying for his salary to be kept up to the amount it reached formerly, when a Mr. Hills had, out of his own pocket, annually handed over £10 a year to Mulcaster. When Mulcaster ineffectually asks the Company to supply the £10 themselves in future, away he runs and flings the words after him: *Servus fidelis, perpetuus asinus*: "A faithful servant is no end of an ass."

From 1586 to 1596, Mulcaster is said to have been surmaster at St. Paul's. At any rate, from 1596 to 1598 he was head-master. He became rector of Stanford Rivers, in Essex, in 1598; and died in 1611. A writer in the *Gentleman's Magazine* (1800, Vol. xxx., Part 1, p. 421) gives the epitaph to Mulcaster's wife: "A grave woman, a loving wife, a careful nurse, a godly creature, a saint in heaven." In *Notes and Queries* (Second Series, Vol. viii., p. 219), Mr. C. J. Robinson gives the names of his children, Silvan, Peter, Katharine, but there would seem to have been other daughters, from the marriage registers.

Let us turn from his domestic circle to Mulcaster the school-master. Thomas Fuller describes him and his teaching in his own quaint language:—

"In a morning he would exactly and plainly construe and parse the lessons to his scholars, which done, he slept his hour (custom made him critical to proportion it) in his desk in the school, but woe be to the scholar that slept the while. Awaking he heard them accurately; and Atropos might be persuaded to pity as soon as he to pardon when he found just fault. The prayers of cockering mothers prevailed with him as much as the requests of indulgent fathers, rather increasing than mitigating his severity on their offending child."

If report speaks true, Mulcaster indeed did not spare the rod. The following, slightly altered, comes from a law student's commonplace-book,

probably belonging to one Thomas Wateridge, of the (Middle) Temple, in the time of James I:—

"Mulcaster was held to be a good school-master, and yet he was somewhat too severe, and given to insult too much over children that he taught. He being one day about whipping a boy...out of his insulting humour, he stood pausing a little...; and then a merry conceit taking him, he said: 'I ask the banns of matrimony between this boy...of such a parish, on the one side, and lady Birch, of this parish on the other side; and if any man can show any lawful cause why they should not be joined together, let them speak, for this is the last time of asking.' A good sturdy boy, and of a quick conceit, stood up and said: 'Master, I forbid the banns.' The master, taking this inudgeon, said: 'Yes, Sirrah, and why so?' The boy answered: 'Because all parties are not agreed'; whereat Mulcaster, liking that witty answer, spared the one's fault and the other's presumption."

On Mulcaster's enthusiasm for his profession, and his excellence in it every one is agreed. Mr. Quick quotes from "*Liber Famelicus*", in the Camden Society's publications, the testimony of Sir James Whitelocke, one of his pupils at Merchant Taylors'. It is not to be forgotten, further, that a more distinguished man, Dr. Lancelot Andrewes (Bishop of Winchester, on whom Milton wrote an elegy)—

"showed the greatest regard for Mr. Mulcaster...in all companies, and always placed him at the upper end of his table, and, after his death, caused his picture (though he had few others in his house) to be set over his study door. Besides these external mark of gratitude, he supplied his necessities privately in a very liberal manner, and left his son a valuable legacy."

But Sir James Whitelocke and Bishop Lancelot Andrewes were by no means the only distinguished pupils whom Mulcaster turned out of Merchant Taylors'. H. B. Wilson ("*History of Merchant Taylors' School*," Vol. I., p. 85), says:—

"Oxford and Cambridge were indebted to Mulcaster for many excellent scholars whose literary performances were highly spoken of in their day. Hethe, Bowsfield, Thomson, Andrewes, Dove, Lodge, Gwynne, Perin, Sandys, Sutton, Buckridge, Caesar, Buckland, Latewar, Searchfield, and Hutton of whom four attained episcopal dignity, were the admiration of their contemporaries."

Wilson includes another name in his list, but I have reserved that name for mention apart from all the others. Richard Mulcaster probably had for pupil the greatest of the Elizabethan poets, Edmund Spenser....

It is a remarkable fact that Edmund Spenser's first poetic flights were accomplished just on leaving school. They consisted of translations from Petrarch and from du Bellay, and were published in 1569 in a miscellany called *The Theatre of Wardlings*. That a boy just leaving Merchant Taylors' School should have taste and ability to translate from Italian and French is confirmatory of the interest we should expect to find Mulcaster showing in glorifying the use of the mother-tongue.

Mulcaster himself, it is true, wrote in Latin, and wrote very good Latin. He wrote some easy-going Latin verses to Elizabeth on her royal progress to Kenilworth in 1575. In 1580, he prefixed commendatory verses to that remarkable school-book of Christopher Ockland, called "*Anglorum Praelia*", and in 1582, to the same writer's *Ελληνισμός*. In 1575, he addressed more verses to Elizabeth on her skill in music.

As I am speaking of Queen Elizabeth, let me just mention here, first, that Mulcaster dedicated his greatest educational book, the "*Positions*", to his most dear and sovereign Princess, Elizabeth; secondly, that she, on her part, by her "*prerogative gift*", made him "*parson*" of Standford Rivers; thirdly, on her death, as Mr. Quick states, Mulcaster published a Latin poem, "*in which he seems quite consoled by the accession of James*".

THE "*ELEMENTARIE*".

The "*Elementarie*" deals with school-life up to twelve years of age, before the teaching of grammar (Latin) is begun. Now, Mulcaster boldly maintains—three hundred years ago, remember—*that the highest master should teach the youngest boys and should receive the highest pay for so doing*. It is, the foundation, well and soundly laid, which supports the whole building. "If I were to strike the stroke," says he, "as I am but to give counsel, the first pains truly taken should in good truth be most liberally recompensed; and less allowed still upward, as the pains [of teaching] diminish, and the ease increaseth."

The subjects he purposes "*be*" five in number: reading, writing, (we miss arithmetic!), drawing, singing, and playing. In addition, always, and of the first importance, whatever will "*strengthen their [children's] bodies or quicken their wits*". The liberal course Mulcaster grounds upon authority (Plato, Aristotle, Politian, &c.) and "*probability*", but he is aware that so full a course will not be "*allowed of most*". How modern this passage sounds! Mark the direct and dignified English, when Mulcaster lets himself go:—

"Who am I to persuade the liking of so full an *Elementarie*?...[It may be said to me]: 'You meddle in this matter alone, you do but trouble yourself; you cannot turn the course which is ordinary and old, and therefore very strong for you to strive against; this thing which you commend is not every man's war; it will not be compassed; do you let it alone; if you will needs write, turn your pen to other matters, which the State will better like of: which this time will soon allow: which you may persuade with credit, if they be new and suitable; or confirm with praise, if they be old and need the file.'"

Mulcaster recognises that this is the fate of everyone in "*all attempts of turning*". This is his answer:—

"To win a resolute good, he that wishes to have it must think to wrestle for it, both with words and writing, against corruption of the time, against the aloneness of the attempt, against prejudice of parties, against the difficulties of performance, and whatever else."

54

Then follows the curious passage:—

"May it not fall out that such a thing as this is may be called for hereafter, though presently not cared for, through some other occasion, which hath the rudder in hand. I had, therefore, rather that it were ready then, to help when it were wished for, than for fear of misliking, at the first setting forth, to defraud posterity of a thing so passing good."

Posterity has not interested itself to hear what Mulcaster has to say. Yet, in an age which has adopted free elementary education, it would not be inappropriate or unacceptable to have a reprint of the "*Elementarie*", and for the rest of the nineteenth century or the twentieth, that English people should judge for themselves if Mulcaster's ideas are "*passing good*".

Mulcaster planned his "*Elementarie*" not for all boys and girls, but for those who, by quick conceiving, sharp wit, laborious courage, fast retaining, and honest disposition, showed themselves worthy of going on to the heights of learning. He would have every child taught reading and writing; but his "*Elementarie*" is, strictly speaking, a *foundation* for a higher course. Yet much of what he has to say is true for education which ceases at twelve or thirteen. Here is a rationale of his subjects: "*By reading we receive what antiquity hath left us, by writing we deliver what posterity craves of us; by both we find great ease in every occasion of our daily use*." Drawing trains the eye: music, established on arithmetic (one of Mulcaster's few references to arithmetic) helps to an appreciation of the beauty of concord and the blot of dissension even in a politic body, and, moreover, is the "*natural sweeter of our sour life, in any man's judgment that is not too sour*". (Ends proposed are human, not merely utilitarian. Man is the end, not the means.) Mulcaster insists on the training of the hand in writing, the eye in drawing, and the ear in music. He offers a psychology—of a somewhat crude kind, it is true—for the senses, the brain, "*the prince of all our parts*", and the soul. He also gives a rough account of the physiology of digestion and nourishment. It is interesting that he should make an essay towards a psychology, and that he should base his teaching on it, crude as it is.

He divides abilities into the *first humanities*, and the *best humanities*. The former include all that is necessary for living, the latter refer to those induced by "*train*", or education, for *living well*. Of the *best humanities*, he says—and this may stand as his

DEFINITION OF EDUCATION.

They (the *best humanities*) "*form the senses and the instruments thereof to their best perfection and their longest endurance. They restrain desire to the rule of reason, and the advise of foresight. They so enrich the mind and the soul itself, as they lay up in the treasure of remembrance all arts, all forecast, all knowledge, all wisdom, all understanding, whereby either God is to be honoured, or the world to be served in honest and wise sort*."

The training of the powers of children is done, so to say, surreptitiously. Mulcaster occasionally introduces stories to illustrate his point, and he tells how Timotheus, the Athenian, gained his victories by the want of thought on the part of the enemy. He thinks, in the same way, the friends and teachers are to steal a march on unwary boys and girls, and educate them as he himself says, "ere themselves can perceive it". This precisely brings out Mulcaster's defect in the light of later pedagogy. He has no adequate idea of the responsive self-activity of the child, as a pedagogic principle.

When, however, he speaks of the necessity of the fore-train, he is a modern of the moderns.

"Is the compassing of tongues [languages] hard? sure so it is, to one of no fore-train, that never learned grammar, that never read writer, that never proved his stile [pen]. Be the mathematics hard? Sure so they be to one not prepared, that never did number, that never drew line, that never knew note, that never marked motion. Be the abilities of the body laborious and hard? Sure, that they be, where no exercise goeth before, where the joints be stiff, where it is painful to prove what the body can do, being never put to it."

In connexion with the necessity for this elementary foundation, there are two points in Mulcaster which are so much in accord with the best (I say best, advisedly) modern education, that I must mention them. First, he thinks the advantage of grammar teaching at an early stage is overrated.

"The end of Grammar," he says, "is to write and speak, which when we do most, we learn our grammar best. ... As for the understanding of writers, that comes by years and ripeness of wit, not by rule of grammars."

Secondly, although the idea of universal education has not struck Mulcaster, yet he is exceedingly liberal in his view of the use of his elementary "foundation". After saying that, for the boy who is destined for learning, he will find nothing intolerably hard if he has had a good fore-train: "Nay, what shall he find hard, though handicraft be his end? For he may well have all these [elementary] principles, yea, and the mathematics, too, and yet aspire no higher than the plain workman." In another passage he distinctly asserts that it is a mistake to suppose a handicraftsman can be satisfactory without sharp wits and good abilities.

"Choice of wit limits students."

"Is (a boy) poor? provide for him, that he may live by trade, but let him not loiter. Is he witty? why, be artificers fools? and do not all trades occupy wit?"

I am loath to leave out Mulcaster's stories of Dionysius and the Cook, and of Syphax, King of Barbary, and many *bons mots* in his pages. Nor can I dwell upon a most interesting educational topic, in what he calls "the general platform and method of the whole Elementarie". This includes a comprehensive and illuminative discussion of the subject-matter of the "Elementarie", and also Mulcaster's method or "manner" of teaching each of the subjects.

I pass on to the most distinctive feature of Mulcaster's "Elementarie", that by which he will ever be known, and that for which the book will some day be read.

THE TEACHING OF ENGLISH.

Latin was, as we have seen, the learned tongue, and Mulcaster apologises for his plea for the teaching of English. He says:—

"Our natural tongue being as beneficial to us for our needful delivery as any other is to the people which use it; and having as pretty and as fair observations in it as any other hath, and being as ready to yield to any rules of art as any other is, why should I not take some pains to find out the right writing of ours, as other countrymen have done to find out the like in theirs?"

He returns, again and again, to this delightful theme. His joy in it is comparable to that of Columbus on seeing America. Mulcaster discovered the great merits of English, as a language. How could he justify his pleasure to a learned world that, by tradition and use, only thought of Latin as a literary language? He must show, in the first place, its antiquity.

ANTIQUITY OF OUR TONGUE.

Our language cannot be called young—

"Unless the German itself be young, which claimeth a prerogative for the age of its speech of an infinite prescription; unless the Latin and Greek be young, whose words we enfranchise to our own use, though not always immediately from themselves, but most what through the Italian, French, and Spanish; unless other tongues, which be neither Greek nor Latin, nor any of the forenamed, from whom we have somewhat, as they have from ours, will, for company's sake, be content to be young, that ours may not be old. But I am well assured that every one of these will strive for antiquity and rather grant it to us than forego it themselves."

In bold, noble language, instinct with the patriotism of the Elizabethan age, Mulcaster speaks of the English nation as being of "good credit", even in the language of its detractors and enemies. He then shows that the matter of our speech is as significant and lofty as that of any other nation. He discusses, with admiration, the effect that chivalry must have had in increasing and refining our vocabulary. The inspiring effect of war, its true and untrue reports, its projects, devices, and multitude of discourses, are vigorously shown, and, finally, Mulcaster draws attention to the influence of trade in expanding ideas, and in provoking apt expression.

"If the spreading sea and the spacious land could use any speech, they would both show you where and in how many strange places, they have seen our people, and also given you to wit that they deal inasmuch and as great variety of matters as any other people do, whether at home or abroad. Which is the reason why our tongue doth serve to so many uses, because it is conversant with so many matters, in so sundry kinds of dealings. Now all this variety of matter and diversity of trade make both matter for our speech and means to enlarge it."

Time does not permit me to give an account of Mulcaster's thorough-going attempt to expound the principles of English teaching. He divides his discourses and exposition into proportion, composition, derivation, distinction, enfranchisement, prerogation. He supplies a general table, in which he gathers together the words most commonly in use in Elizabethan speech. The whole treatment of English is so interesting that it is rather remarkable how the student of the English language usually manages to overlook the study of the "Elementarie".

Mulcaster addresses a long peroration to his readers at the end of his "Elementarie". In it he returns once more to the advocacy of the English language, as a subject for teaching, and as worthy of cultivation. He is headmaster of a classical school, he is an able Latin writer, and yet his call to the study of English is the strongest thing of its sort in the last three hundred years. Now, we know, English is being taught worthily in some schools, owing largely to the successful teaching of English in girls' schools. It is an interesting conjunction—women and literature. Mulcaster was all for the training of the one, and the teaching of the other, in the time of good Queen Bess!

One passage more, the best known, from the peroration to the "Elementarie". It is on the value of the English v. Latin as a literary language:—

"Our own language bears the joyful title of our liberty and freedom, the Latin remembers us of our thralldom and bondage? I love Rome, but London better; I favour Italy, but England more. I honour the Latin, but I worship the English. . . . I honour foreign tongues, but wish my own to be partaker of their honour. Knowing them, I wish my own tongue to resemble their grace. I confess their furniture, and wish it were ours. Why should not all of us write in English? . . . I do not think that any language, be it whatsoever, is better able to utter all arguments either with more pith or greater plainness than our English tongue . . . not any whit behind either the subtle Greek for crouching close, or the stately Latin for spreading fair."

Imagine Mulcaster had been a German, and had been writing of the German language, would not his words have been known and valued this many a year? It is still an open question whether the "Elementarie" will be reprinted by a German editor and publisher, or by Englishmen. Which ever it may be, let us hope it will come soon, and those words of Richard Mulcaster find fulfilment:—

"May it not fall out that such a thing as this is may be called for hereafter, though presently not cared for, through some other occasion which hath the rudder in hand?"

I will recall the main educational contentions of Mulcaster:—

1. Culture and learning for those who have the wit to profit by it, whether rich or poor. Adequate knowledge for those who go into trade.
2. Education for girls and women, as well as boys and men. Higher education for girls who have good abilities.
3. Training colleges for teachers.

4. Physical training for all—boys and girls, teachers and pupils, and this to be continued in after-life.

5. Liberal education, with disinterested aims for the elementary schools.

6. The best masters to take the lowest classes.

7. Drawing and music to be taught in every school, not as "extras", but as essentials.

You will notice that the last-named five aims are only within the field of discussion even yet; they are not *faits accomplis*. All this time they have been in Mulcaster's book, and Mulcaster's book—a few copies of it, very few—have been gathering dust. . . .

A NOTE ON THE SOLUTION OF PLANE TRIANGLES.

No book seems to treat satisfactorily that case of the solution of plane triangles in which two sides and the angle opposite one of them are given. Not to speak of other minor imperfections, almost every treatise on Trigonometry assumes the given angle to be acute. It is true that, in obtaining the third side independently from a quadratic equation, Todhunter notices, just at one point, the possibility of an obtuse angle being given; he does not, however, fully work out the consequences of such a hypothesis. That the known angle need not be acute is distinctly recognised in Lock's Trigonometry in the method of first finding an angle; but it is disposed of in a few words to the effect that, when the angle given is not acute, of the two values, acute and obtuse, that are obtained for the angle to be found, the acute value alone is admissible, no explanation being given whether even this value may happen to be inapplicable. The following is an attempt to consider the question fully, in both the ways referred to above; of course, it might also be discussed geometrically.

Suppose a, b and A to be given. Then to find the third side, we have the equation $a^2 = b^2 + c^2 - 2bc \cos A$, from which is obtained $c = b \cos A \pm \sqrt{a^2 - b^2 \sin^2 A}$

(1) If $a > b \sin A$, there are two different real values for c , which, however, would be inadmissible unless they are positive.

When A is acute, the upper sign for the surd makes c positive, but, that the lower sign may also do so, we must have $b \cos A > \sqrt{a^2 - b^2 \sin^2 A}$ i.e., $a < b$. Thus, if $a < b$, there will be two triangles; otherwise, one.

When A is a right angle, only one value of c is positive, so that there will be one triangle.

When A is obtuse, the lower sign for the surd will not do; nor will the upper sign make c positive, unless $\sqrt{a^2 - b^2 \sin^2 A}$ be numerically

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greater than $b \cos A$, i.e., $a^2 - b^2 \sin^2 A > b^2 \cos^2 A$, and therefore $a > b$. There will, therefore, be one triangle if $a > b$; otherwise, none.

(2) If $a = b \sin A$, c has but one value $b \cos A$, which will be admissible, only if A be acute. In this case, then, there will be one triangle if A be acute; otherwise, none.

(3) If $a < b \sin A$, the values of c are imaginary, which indicates that no triangle is possible with the given elements.

The same results must of course, follow, if, instead of obtaining the third side, we first find an angle. The angle B may be found from the equation $\sin B = \frac{b \sin A}{a}$.

(1) If $a > b \sin A$, then $\sin B$ is less than unity, and B may have two values, one acute and the other obtuse, and we have to examine if either value is admissible.

When A is acute, the acute value of B may be taken; but the obtuse value would be inapplicable, unless it is less than the supplement of A , i.e., unless $\sin B > \sin A$, and therefore $a < b$. There will, therefore, be two triangles if $a < b$; otherwise, one.

When A is a right angle, the acute value of B will do, but not the obtuse, so that there will be one triangle.

When A is obtuse, it is evident that B cannot be obtuse also; and even the acute value of B will have to be rejected, unless it is less than the supplement of A , i.e. $\sin B < \sin A$, and therefore $a > b$. Thus, there will be one triangle if $a > b$; otherwise, none.

(2) If $a = b \sin A$, B is a right angle, and, therefore, there will be one triangle if A be acute; otherwise, none.

(3) If $a < b \sin A$, $\sin B$ must be greater than unity, which is impossible, and this shews that no triangle could exist with the given parts.

Summing up all the results,

(1) If $a > b \sin A$,

When A is acute, there are two triangles, provided $a < b$; otherwise, one.

When A is a right angle, there is one triangle.

And when A is obtuse, there is one triangle provided $a > b$; otherwise, none.

(2) If $a = b \sin A$, there is one triangle when A is acute; otherwise, none.

(3) If $a < b \sin A$, there is no triangle.

In remembering these results, it will be useful to notice how there is a gradual fall in the number of solutions: 2 or 1, 1 or 0; 1 or 0; 0.

T. R. VENKATASWAMI NAYUDU.

P.S.—The *Note on Simple Surd Equations* in the last November number of the Journal closes with the following rule for finding such roots as may be lost by a certain method:—"If x be really involved, and if each member of the identity be divisible by the corresponding side of the equation, or, at least, has a common factor with it, involving x , we shall lose a root or roots, which may, however, be got by equating to 0, (zero) one member of the identity or the common factor" (p.713). The "divisibility" here meant is when the divisor involves surds and the "common factor" is one between rational quantities; as this has not been expressly stated, the rule is likely to be misunderstood. It will be clearer if put thus:—*If neither side of the equation be free from surds, one member of the identity should be equated to cipher; but, when one side of the equation is altogether rational, the factor common to this and a member of the identity should be equated to zero.* When this is done, we shall always recover every root lost, without introducing any extraneous ones.

PATCHWORK VERSES

(In the New York Journal of Education.)

Twist ye, twine ye, even so
Like a tired child at a show,
Men may come and men may go.

Even from the tomb the voice of nature cries
Exalt thy towering head, and lift thine eyes—
I would I were where Helen lies.

Paul! lay thy noisy rattle by,
The river runs bluer than the sky,
You'll never miss the water till the well runs dry.

Pleasant it was when woods were green—
Sure I said, Heaven did not mean
We have drunk from the same canteen.

As one who walking in the twilight gloom,
Making it rich and like a lily in bloom,
How could he mark thee for the silent tomb?

Old Ironsides at anchor lay
As a ship at anchor in the bay—
Have you heard of the wonderful one-hoss shay?

The enemies of my lord are dead—
I'm going a milking, sir, she said,
Shoot, if you will, this old gray head.

Alas ! alas for Harry Gill,
The dew on his thin robe was heavy and chill,
The stag at eve had drunk his fill.

O call my brother back to me—
One if by land, and two if by sea.
And this is the end of one, two, three.

N. B.—Each of the above lines is taken from a well-known poem. We offer a prize of a year's subscription to the Journal to the reader that can identify the greatest number. Competitors should send in their replies on a single page of foolscap (written only on one side), giving the number of the line above, the name of the poet, and the name of the poem. If two or more are equal, the prize will be awarded to that first received.

NEWS AND NOTES.

INDIAN.

The Convocation of the University will be held on the 28th March. The Hon'ble V. Bashyam Aiyangar will deliver the usual address.

The prize given by Sir Charles Elliott, Lieut.-Governor of Bengal, for scientific research, will be awarded this year for the best essay giving the results of original investigation in mathematics.

The following Committee has been appointed by the Syndicate to conduct the Practical Test of the L. T. Degree Examination; Mr. John Adam; Mr. Geo. Bickle, Rev. W. Skinner, and Mr. R. Ll. Jones.

At a meeting of the Faculty of Arts of the University of Madras, held on the 26th January, the Rev. Dr. Miller presiding, Mr. John Adam, M.A., Principal of Pachaiyappa's College, was elected a member of the Syndicate, to fill the place rendered vacant by the resignation of Mr. H. B. Grigg, C.I.E., who has ceased to reside permanently in Madras.

The Director of Public Instruction has appointed the following as the Board to conduct the Examinations in Commerce under the new notification for the next three years. Mr. John Adam, M.A., Pachaiyappa's College; Mr. K. Subramania Iyer, B.A., L.T., Teachers' College, Saidapet; Mr. E. C. Woods Scawen, Messrs. Arbutnot & Co.; Mr. Tom Luker (for short hand only).

At the meeting of the Council of the Victoria Technical Institute Madras, held on 27th January, Mr. J. A. Boyson was requested to rejoin the Council in place of Mr. Grigg resigned. The Council had under consideration their Secretary's memorandum on Technical Education, and requested him to draw up a working scheme for a Technical Upper Secondary School, showing the staff, curricula, and estimated expenses. As the buildings are now approaching completion, the Secretary was further requested to submit a list of Technical books to be purchased out of the donation of Rs. 20,000 given for the purpose by Rai Bahadur Arcot Dhanakhoti Mudaliyar.

We understand that Sir Dinshaw Manockjee Petit, Bart. the well known Parsee millionaire of Bombay, has, at the instance of Mr. D. N. Wadia, M.A., Principal of the Sir J. Jeejeebhoy Parsee Benevolent Institution, presented that Institution with the munificent sum of Rs. 15,000 for the purpose of opening a Drawing Class or a French Class in connection with the High School of the Institution.

In the *Gazette of India* is published a Despatch from the Secretary of State on the request made by the Government of India that the Intermediate and Bachelors' Degree Examination in Arts of the London University, should be held in Calcutta. The authorities of the London University have acceded to the application, it being understood that whenever candidates propose to offer themselves for the said examinations the Government of India will give notice to the London University through the Secretary of State's Department, and will observe the conditions for holding examinations at centres out of Great Britain.

The Mysore Educational Department appears to have devised a very successful plan for overcoming the reluctance shown by the pupils of the Maharani's Girls' School to enter for public examinations. It has instituted a Normal Department, for the supply of women teachers to the schools and for home classes, and has ruled that only such as have passed the Lower Secondary Examination may be admitted. As a consequence, in 1891, 12 girls went up and 9 passed, and in 1892, 16 girls went up and 7

passed, one in the first class. The *Mysore Herald* notes that in spite of the 'orthodox' opposition, the Brahmins have been the first to acquiesce in the regulation and adopt steps to benefit by it. The other communities are still very obstinate, but in spite of this there are favourable signs, particularly in the fact that one Lingayet girl 'withstood all persecutions' and came out successful.

The results of the Matriculation and F.A. Examinations are too well-known long ere now. The following comparative table of the results of the last examination compared with those of the three preceding years may be found useful and interesting.

Year.	Registered.	Passed.	Percentage passed.
FIRST-IN-ARTS.			
1889	2,053	359*	17.8
1890	2,095	668	32.5
1891	2,048	740	36.7
1892	2,018	779	38.6
MATRICULATION.			
1889	7,203	1,611	22.6
1890	7,051	1,648	23.5
1891	8,029	2,381	30.1
1892	3,402	520	15.8

Some remarks upon these figures will be found in our Editorial pages.

We have pleasure in repairing an omission and calling the attention of our readers to the very interesting and artistic series of Indian cards for greetings and congratulations, published by the veteran Rai Bahadur V. Krishnama Chariyar. These have been designed with much taste and considerable preliminary outlay to serve the purpose in the Hindu family and social circle that the Christmas, New Year, and Easter cards perform among Europeans. The subjects are Indian and the literary portion is also Indian; we regret we cannot add that the execution is also Indian. This country does not seem as yet competent to turn out such beautiful specimens of colour-printing and so the work had perforce to be entrusted to the well-known London firm of Messrs. Dean and Son. The cards, of which there is a large variety, are sold at the low price of one anna each. They can be procured from the publisher of this Journal, Mr. V. Kalyanaram Iyer. We are sure they have only to be seen and known to form an indispensable accompaniment of the garland and rose-water on all the many festive occasions of the Hindu community.

The following gentlemen have been nominated by His Excellency the Governor as Fellows of the University of Bombay:—Mr. J. C. Anderson, Barrister-at-Law; Mr. Ganesh Krishna Apte, B.A., L.C.E., (Bombay); Mr. F. W. Bain, M.A., (Oxon); Rao Bahadur Thakurdas Kikabhai Dalal, L.M. & S. (Bombay); Mr. J. F. Fleet, C.I.E., I.C.S.; Mr. Tribhuvandas Kallindas Gajjar, M.A., B.Sc., (Bombay); Mr. Jamshedji Jivanji Gazdar, M.A., (Bombay), Barrister-at-Law; Mr. M. J. Jackson, M.A., (Oxon), D.Sc., (London), M.I.E.E.; Mr. Mancharji Karasji Kanga, M.A., B.Sc., L.M. & S., (Bombay); Veterinary Captain J. Mills, M.R.C.V.S., and S. H. and A. Society, Scotland; Reverend Brajdo Monte, D.D., D.C.L., of the University of Rome; Syed Sirajudin Abdul Fattah Moulvi, B.A., (Bombay); Mr. Pestonji Jamasji Padsha, M.A., (Bombay), Barrister-at-Law; Surgeon-Major J. Parker, M.D.; Mr. Ganpat Sadashiv Rao, M.A., LL.B., (Bombay); Mr. W. H. Sharp, B.A., (Oxon); Mr. A. W. Thomson, D.Sc., Glasgow; Surgeon-Colonel P. S. Turnbull, M.D.; Reverend E. Usteri, S.J., and Mr. Krishnaji Balvant Wagle, M.A., (Bombay).

GENERAL.

Mr. Isaac Pitman, the veteran phonographer, completed his eightieth year on the 4th January.

Of the 400 candidates who presented themselves for the last B.A. Examination at London University, 83 were women. Of 239 who passed, 63 were women. Thus 76 per cent. of the women passed as against 55.6 per cent. of the men.

A vigorous movement has commenced for the establishment of a Welsh University. With a very advanced Intermediate Education Act all to herself and three University Colleges already in existence, Wales should find no difficulty in carrying the movement to a successful termination.

Mr. Earnest Gray, headmaster of St. Gabriel's School, Pimlico, and Chairman of the Parliamentary Committee of the Executive of the National Union of Elementary Teachers, has been unanimously selected as a candidate to contest the Parliamentary Borough of West Ham, North, against Mr. Grove, the sitting Radical member.

The Right Hon. A. H. Dyke Acland, Vice-President of the Committee of Council on Education, has recently appointed a Departmental Committee, consisting of officers of the Charity Commission, the Education Department, and the Department of Science and Art, to consider the

question of the organisation of secondary education in England and Wales, and the relation of the Departments among themselves in connection with this subject.

The Committee consists of the following members:—The Vice-President of the Council (Chairman); Sir H. Longley, K.C.B., Chief Charity Commissioner; Mr. T. E. Ellis, M.P., Parliamentary Charity Commissioner; and Mr. Fearon, Secretary to the Charity Commissioners, representing the Charity Commission. Mr. Kekewich, C.B., Secretary to the Committee of Council on Education, and the Rev. T. W. Sharpe, Her Majesty's Senior Chief Inspector of Schools, representing the Education Department. Major-General Donnelly, C.B., Secretary of the Department of Science and Art; Captain Abney, C.B., F.R.S., Assistant Director for Science, and Mr. Armstrong, Director for Art, representing the Department of Science and Art. Mr. H. W. Simpkinson, Examiner in the Education Department, acts as Secretary to the Committee. The Committee has already held sittings.

The Americans are becoming very precious in education. The *School Journal* has discovered a tendency towards deterioration in the keeping of holidays. "The teacher," it thinks, "should instruct the children in the true meaning of Christmas, Thanksgiving, Independence day, and Washington's birthday. Quite a number of schools kept the Thanksgiving idea alive by having pupils tell in essays what they had to be thankful for. Christmas should be known to the children as the day when the world really began to go upward. It is certainly celebrated with increasing importance every year. New Year's day is destined to sink; it was undoubtedly celebrated to aid in keeping track of the calendar in ignorant times, so that laboring men would know when the term of service expired." In our youthful days we used to think holidays were made for play; they were bright oases in the dreary expanse of school drudgery. Of course we know better now; they were wasted days, the devotion of which to hard work would have put us one minute ahead of where we are now.

Under this regime, however, what about the truant, the lost boy who is so thankless as to crave for holidays without any lofty significance about which he can write an essay? Or suppose he takes a holiday on any day on which he discovers some great and good man died, and tells his teacher he went reverently out into the silent orchard or upon the frozen pond, to meditate upon his hero and form resolutions to live up to him. What could that teacher, *honestly*, do?

59

The *London Daily Chronicle*, one of the many distinguishing features of which is its interest in Education, has commenced a series of articles headed "Intermediate and Secondary Education: Shall it be organised?" The first article is retrospective, and includes the following remarkable figures as to the progress of Elementary Education. In 1870 there were of annual grant schools—i.e., departments—8,281. There are now 29,031. The school seats were then 1,878,584; they are now 5,628,201. There were scholars present at examinations then 1,512,684; last year there were 4,475,376. Of teachers of all grades there were in 1870 30,130. There are now no less than 102,772. The income of the schools is made up from the following sources:—Endowments, £163,629 4s. 1d., rates (in school board districts), £1,450,187 7s. 11d.; voluntary contributions, £779,558 19s. 5d.; school pence (a charge which henceforth the State will meet), £1,969,370 8s. 3d. The Government grant amounted to £3,333,543 11s. 7d., and the grand total reached £7,813,706 8s. 11d., the rate of expenditure per scholar being £2 1s. 4½d.

Mr. Balfour added a word of warning to his recent address at the Manchester Technical School on "Technical Education". "The enormous subdivision of labour," said the Right Honourable the Member for Manchester East, "the most striking characteristic of modern history, was ruinous, if not to the material prosperity, at all events to the mental welfare of the workmen. It was time to do our best to counteract and mitigate what narrowing tendency there might be in the methods of modern industrial production." Of course the answer to this criticism lies in a reference to the true aims of technical education. The great laws of nature and the fundamental principles underlying each branch of industry, if intelligently studied, will provide food for unremitting reflection, even on the part of the most omnivorous of minds. Still, coming to another phase of the question, many educationists are—shall we say—sufficiently old-fashioned and conservative in instinct, as to look jealously and regretfully at the gradual but continuous encroachment of manual training upon the domain of educative work of a strictly formative character. The school life of the working-class child is all too brief, even for a proper and sufficient mental training, and there is a danger that the necessity for attention to this side of his full equipment may be lost sight of in the general clamour for training of a technical and practical character. '72 heard the cry that by Books alone could the regeneration of the British workman be effected; to-day, Tools are the essentials to salvation. The truth, as usual, lies between the two, for man cannot live completely either by Books or Tools alone.—*The Schoolmaster*.

LITERARY.

The Schoolmaster pays us the compliment of republishing Mr. N. Vaithianadha Iyer's article, upon "The Schoolmaster in India", in a recent number.

* *

The final proofs of Mr. Dutt's *Ancient India*, forming the first of Messrs. Longmans' Epochs of Indian History, have just been despatched to England by the Editor of the Series, Mr. Adam. Mr. J. D. Rees, C.I.E. finished the MS. of his volume on the Muhammadan Rulers of India before he left on furlough, so that its publication may be expected in the early autumn.

* *

We have received a copy of the Second Edition of Mr. Adam's *Commercial Correspondence* published in London by Messrs. Longmans & Co. As adapted for Indian students this little work has reached a third edition; as specially prepared for Commercial Schools in England it was published in June of last year, and a second edition was called for in October. We understand that editions are in preparation to suit the Australian and American markets.

* *

Regular meetings of the *Maine Historical Society*, which has fallen into abeyance for some time, will be recommenced in the present month. The first paper will be by Dr. Oppert on 'The Bharatas and the Mahabharata', the second will be by Mr. Adam upon 'Bijapur', and arrangements are being made for others to follow. *Inter alia* a paper is in preparation by Mr. Adam and Mr. T. R. Ramanadha Aiyar, B.A., L.T., Assistant Professor of History in Pachaiyappa's College, upon the *Ancient Dynasties of Southern India*, in which an attempt will be made to present in a systematic form the results of the latest researches of Dr. Hultsch, Mr. Rice, Mr. Foulkes, Mr. Fleet, and other archaeologists.

* *

Not the least important fact in the history of the Society is the patronage afforded it by the sovereigns and princes of the South. H. H. the Maharajah of Travancore, G.C.S.I., the Most Honourable the Maharajah of Vizianagaram, G. C. I. E., and the Honourable Sethupati the Raja of Ramnad, have consented to become patrons of the Society.

* *

The one thing lacking to the success of the Society is that native graduates and scholars should show some active interest in it and not only attend the meetings but prepare papers on some of the many subjects they are so well qualified to investigate.

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SCIENTIFIC.

Chemical research is not always unattended with danger. It has cost many a valuable life, and the Science has now claimed a fresh victim in the person of Dr. Hans Oscar Schulze, Professor of Chemistry and Mineralogy in the University of Chile, at Santiago. This gentleman has for many years been engaged in the study of the conditions under which bodies assume the colloidal condition, and having already succeeded in obtaining antimony trisulphide in this form, attempted to obtain similar results with the corresponding arsenic compound. In pursuit of the investigation he passed a current of arseniuretted hydrogen (AsH_3) through a solution of As_2O_3 , but, through some defect in the apparatus he employed, an escape of the gas occurred, though in so small a quantity that its odor was not noticed by the operator. The experiment had been proceeding for an hour and a half when Professor Schulze felt sick, and realised that he had been poisoned by the gas he had unconsciously inhaled. He left the laboratory, but before doing so wrote in chalk by the side of the apparatus "Ciudad AsH_3 " (take care!) Five days afterwards he was dead—all efforts having proved useless to counteract the action of the poison. Nothing could arrest the progress of the uræmia and the rapid destruction of the red corpuscles, (the number of which decreased to 1,800,000 per cubic millimetre), and the fatty degeneration of the tissues. Professor Schulze, who, as his name indicates, was of German nationality, has published numerous and important papers on chemistry and mineralogy, and apart from the sad circumstances surrounding it, his death will be regretted by all those who take an interest in these sciences.

* *

On December 13th the Chemical Society of London held an extraordinary meeting, the occasion being the first anniversary of the death of the Belgian chemist, Stas—in the words of the Vice-President who occupied the chair, "one of the greatest chemists of this century, I might almost say one of the greatest chemists ever known to the world." A paper entitled *Jean Servais Stas, and the Measurement of the Relative Masses of the Atoms of the Chemical Elements*, by Professor J. W. Mallett of the University of Virginia—himself a high authority on atomic weight determinations, and well known through his work upon the atomic weights of gold and aluminium—was read, in the absence of the author, by Professor Armstrong, Secretary of the Society. The paper, which is of great length, extending to about 60 pages of the Society's Journal, is also of the deepest interest. After a brief biographical sketch of the subject of the memoir, followed by a historical survey of the succession

of fundamental ideas which gradually led up to the question, What is the mass of an atom of a particular element? and the investigations directed to the solution of the problem, Professor Mallett considers Stas's work in detail. A just tribute is paid to the rigor with which Stas investigated the methods of analysis, and the requirements he discovered and applied with a degree of patience and skill never before used in chemical investigation, while the results he arrived at in the course of his elaborate researches are fully discussed. The latter portion of the paper is devoted to a lengthy consideration of the objects to be aimed at and the methods to be pursued in future investigations of the atomic weights of the elements, and contains suggestions of great value.

The special interest which attaches to this meeting is that it marks a new departure in the work of the Chemical Society. Hitherto the only tribute paid to the memory of deceased foreign members—all men of the greatest eminence—has been an obituary notice published in the Journal. Other learned societies follow the same course, but the Chemical Society has resolved in future to take advantage of the opportunities afforded by the death of its foreign members, to enrich the literature of the science by publishing critical monographs dealing with their investigations, and thus, while honoring their memory, to do educational work among its Fellows and chemists generally. Of this resolution the valuable paper of Professor Mallett is the first product. The work of two other very distinguished foreign members, who died last year, is to be similarly dealt with; that of Kopp the eminent Heidelberg Professor, by Dr. Thorpe of the Royal College of Science, and that of the illustrious von Hofmann by Lord Playfair, Sir Frederick Abel, and Dr. Perkin.

In a recent number of the *Berichte d. deutsch. chem. Gesellschaft* an account is given of two new compounds, prepared by Professor Anschütz of Bonn, which, as they are said to afford a means of obtaining perfectly pure chloroform, and also of preserving it in a solid form in which it is not liable to decompose, promise to be of considerable value. The bodies referred to are formed by the union of the lactides of salicylic acid and its next homologue, the cresotinic acids, with chloroform, their formulae being $C_6H_4.CO.O.2CHCl_3$, and $C_{10}H_7.CO.O.2CHCl_3$. On gently warming the compounds they decompose into the lactide and chloroform. They also furnish the means of obtaining the lactides in a pure state, and it was in the attempt to separate salicylide, prepared by acting on salicylic acid with phosphorus oxychloride, from the numerous products of the reaction, that the compounds were discovered. The

new substances are deposited from their solution in chloroform in large colorless transparent crystals, containing respectively 33.24 per cent. and 30.8 per cent. of their weight of chloroform. In closed vessels they may be preserved unchanged for any length of time, and the same quantity of lactide may be used over and over again for preparing pure chloroform. In order to separate this body from the impurities with which it is usually associated it is merely necessary to allow it to remain in contact with the lactide for twenty-four hours. The crystals formed are removed and decomposed, and the lactide is then ready to be again employed in the same manner.

A pair of instructive lecture experiments consists in heating lead nitrate by itself and mixed with its equivalent of ammonium sulphate. In the former case red fumes of nitrogen peroxide are evolved along with oxygen; in the latter, the colorless gas nitrous oxide: illustrating in a very effective manner the degree of stability or instability of the N_2O_3 molecule under the influence of heat alone and in presence of such a reducing agent as ammonia. The latter reaction may be employed for preparing laughing-gas, as it presents many advantages over the ordinary method. When ammonium nitrate is heated to a temperature of about $240^\circ C$. the evolution of gas is very rapid, strong exothermic action is manifested, and the reaction tends to become uncontrollable. A mixture of lead nitrate, or better still of saltpetre, and ammonium sulphate does not present this objection; the reaction proceeds smoothly and without tendency to any danger of explosive action, even on reaching higher temperatures than can be employed with ammonium nitrate alone.

It is satisfactory to learn that something is at last going to be done for the systematic study of snake poison and its effects on the animal economy. Some time back, the Government of Bengal addressed a letter to the Government of India on this all-important subject, and suggested that the opportunity presented by the erection of a snake-house in the Calcutta Zoological Gardens, to contain specimens of every poisonous snake found in the country, should be taken advantage of for the purpose. They proposed that a laboratory should be constructed in which the composition, nature, and properties of snake poison might be investigated, and various remedies experimented with. The latest information on the subject is that a Bengali gentleman named Babu Govind Chandra Laha has contributed fifteen thousand rupees to the cost of the laboratory, and every obstacle to the realization of the Bengal Government's proposal appears to have been overcome. It is expected that, when the institution is once in working order, it will be resorted to by scientific enquirers from Europe and other parts of the world, owing to the excep-

tional facilities it will present for the investigation of this important and fascinating question.

The following figures relating to the mortality from snake-bites show how difficult it is to exaggerate the importance of the question, and give an idea of the need there is for an institution of this nature. During the eight years ending with 1887, the average number of human beings killed annually by snakes was 19,880, besides 2,100 head of cattle. In 1889 there were 22,480 human lives lost from the same cause and 3,793 cattle; while for 1890 the corresponding figures were 21,412 and 3,948. In the former year 578,415 snakes were destroyed at a cost of Rs. 23,556, and in the latter year 510,659 snakes, at a cost of Rs. 19,004. The average result for all the provinces of India showed a mortality of one to every 10,155 of the population in 1890, as compared with one to every 9,673 in 1889. This frightful sacrifice of life has been going on from time immemorial, and hitherto, beyond payment of rewards for the destruction of the reptiles, nothing has been done to check it; it is difficult to see what could be done to check it—except the very thing which is at last being undertaken.

Diethylbenzylamidotriphenylcarbinoltrisulphonic acid is the name of a dye which has lately been employed in Paris for producing green flowers. It is said that flowers having strikingly different colours from those conferred by nature—for instance blue roses and green pinks,—were recently in vogue in that city and realized high prices, being regarded as new varieties or natural curiosities. The peculiar effect was obtained by allowing the stalks of the freshly cut flowers to stand for a few hours in solutions of some of the coal-tar dyes. By employing cosine rose-colored petals were obtained, picrate of soda produced yellow flowers, whilst the dye-stuff with the gorgeous name, as already stated, turned the blossom green. Lengthy and cumbrous as it is, the name is not exceptional in these respects. The progress of organic synthesis has necessitated a corresponding building up of names which in the matter of length defy competition, and it is impossible to predict the dimensions which these names may ultimately attain. German word-building, which has afforded material for the wit of generations of humorists, and which has certainly produced some grand specimens of the art, is no longer in the running. *Pferdeisenbahnactiengesellschaft* is an imposing enough name to give a tramway company, but our humble green dye which commences its career by getting itself called diethylbenzylamidotriphenylcarbinoltrisulphonic acid has evidently a great future before it.

W. H. W.

CORRESPONDENCE.

To the Editor "Indian Journal of Education."

SIR—I hope you will be good enough to grant me space in the opening number of *The Indian Journal of Education* to state, for the information of all whom it may concern, that by an arrangement concluded with Messrs. Oakes and Co., Mount Road, Madras, and having for its object the encouragement of Sports in Educational Institutions in India, all Sports Clubs whatsoever connected with Mofussil Colleges and High Schools and all Colleges and High School Clubs connected with this Association in the town of Madras, may, if they forward their orders through me as Honorary Secretary of this Association, obtain all their sports materials at twenty per cent. below Messrs. Oakes and Co.'s credit prices, or at ten per cent. below their cash prices. As this would effect a considerable saving of money for the various Clubs, it is desirable that early and prominent notice should be given to it. I shall be happy to receive and see to the execution of all such orders, but no orders will be attended to unless forwarded through the Heads of the various institutions. Messrs. Oakes and Co. are also prepared to supply gymnastic apparatus of the best material and workmanship at the lowest prices to the same institutions. All orders should be addressed to "The Honorary Secretary, M.P.T. & F.G. Association, Pachaiyappa's College, Madras".

MADRAS,
4th February 1893.

M. T. QUINN,
Honorary Secretary.

REVIEW OF EDUCATIONAL REVIEWS.

We resume in this number, and intend to continue, our Review of contemporary Journals dealing more or less closely with educational questions. We shall give a complete list of *all original* articles in the monthly Reviews, and shall also notice any *important* papers appearing in the weeklies. Space will not permit of our giving a complete list of the contents of the latter, which are, however, largely of an ephemeral character.

ENGLISH.

The Educational Review (London, December 1892). 1. "The Relations of Universities and Schools" by Mr. Warren, President of Magdalen College, Oxford, contains proposals for correlating definitely the education of the schools, which should be *authoritative*, with that of the Universities, which should be *reasonable*. He suggests a 'leaving examination', final to the school stage and preliminary to the University. It is further boldly

urged that all the teachers of all the schools in the country of whatever grade should receive a University education. 2. "Musical Drill" (illustrated), by Miss Toplis. 3. "The Danger of Athleticism," by Mr. L. Dyer, suggests that true manliness is likely to suffer an eclipse unless some cure for the extreme forms of devotion to sport now in vogue be speedily devised and administered. 4. "Notes on Lecturing" by Mr. A. Berry, Fellow of King's College, Cambridge. 5. "The Acland-Roscoe Secondary Education Bill and Private Schools" by Mr. J. S. Thornton is a strong plea for the private schools threatened by the Bill of the new Minister of Education. There are of course exceptions, but the average English Upper Secondary Private School is, we should think, the worst educational establishment in the world.

The Journal of Education, (London, January)—1. "The Training of Teachers" by Miss Beale, Principal of the Cheltenham Ladies' College. 2. "The Psychology of Personal Influence" by Miss Corbett. These are two well-thought out and suggestive papers, but marred by an erroneous conception of the *motif* of a teacher's life, one which permeates most papers of the kind. We hope to make them the text for a few remarks next month. 3. "Teacher's Sore Throat" by Mrs. Emil Behnke, is a timely little article. It points out how the teacher's voice requires a different training from that of the conversationalist or the elocutionist; and concludes that failure to breathe through the nose is the cause of most voice breakdowns. The leading articles are upon (4) Mr. Acland's Bill to promote Secondary Education in England; and (5) "Sympathetic Compulsion", illustrating the working of the compulsory clause in London. The supplement contains a full account of the last Headmaster's Conference. Perhaps the subject most interesting to us is "The enjoyment of Scholarships by sons of the wealthy", which deals incidentally with more than one of the considerations connected with the question of Free and Stipendiary Scholarships in Indian schools. We shall take an early opportunity of dealing with this subject.

The Educational Times (London, January)—1. "Edward Mulcaster and his *Elementarie*" by Mr. Foster Watson, is a most interesting account of this worthy and prescient old dominie; we reprint the most interesting portions in our present issue. The leading articles deal with (2) Mr. Acland's Bill, and (3) the correspondence between Professor Huxley and Mr. Karl Pearson upon the split in the "Association for promoting a Professional University for London".

The Schoolmaster.—We must congratulate our contemporary upon having attained its majority, and entered upon such a vigorous and

63

healthy manhood. The first number, published on 2nd January 1872, ran to the "alarming dimensions" of sixteen pages. The regulation size of a number is now 32 pages, while few numbers fail to exceed that minimum. The issue of 14th January of the present year extends to no fewer than 56 pages. In the last number for 1892 an interesting account is given of the inception, growth, and present organisation of this important paper. As old workers in the field—for though we are entering on only the seventh year of our new series, the *Journal of Education* is nearly old enough to be the *Schoolmaster's* father—we wish our English confreres continued prosperity, with undiminished independence and vigour.

The Record of Technical and Secondary Education, (London, January).

1. The schemes for Technical Instruction and reports on that subject of the County Councils of Buckinghamshire, East Riding, Gloucestershire, Cornwall, and West Suffolk. 2. "Technical Education in Art" by Mr. E. R. Taylor, Headmaster of the Birmingham Municipal Schools of Art, attacks the well-worn question of definition. He prefers "Technical Education Act" to "Technical Instruction Act". "Technical Instruction," he says, "may increase the number of skilled workmen on the present lines of sub-division of labour,—of what manufacturers call *hands*—and may possibly increase the skill of these hands within the narrow limits of the minute sub-division of labour in which they are engaged. Such training is not education, and to undertake it for all trades would be an enormous expense—indeed, impossible—would be uneconomic, for it can best be gained in the workshop. Technical Education, on the contrary, joins brains to hands in exercise on an ever widening field, and is the safest and most powerful lever to aid the socialistic movements of the present day." Thus Technical Education "is to make us something more than machines—yea, as gods knowing good from evil." Notwithstanding this little bit of bunkum, the author gives a very practical paper on art training. The usual review of progress in Scotland and England follows. There are page illustrations of the Durham College of Science and the Plymouth Municipal Technical School.

The Indian Magazine and Review (January). 1. "India in 1891" by Mr. C. E. D. Black, summaries in a convenient form the Annual Administration Reports of the various Presidencies and Provinces. 2. "The Caaba", by Miss Govind, is a readable account of the Sacred Mosque at Mecca, with an illustration. 3. "Tree and Serpent Worship" by Mr. Sheppard is partly a review, partly a criticism, of Dr. Fergusson's works. 4. "Aboo", by Mr. Chester Macnaughten, is a light and readable account of the temples at Delwada. The Magazine contains a review of a book we have not seen noticed elsewhere, *Black and White*, an Anglo-

Indian story for children by Geraldine Butt. If this book at all approaches in excellence the samples quoted by the reviewer, it should command an enormous sale in India. We find a continuation by a Mrs. Tait of the discussion upon intercourse between Europeans and Indians in India. Mrs. Tait having travelled for fifteen months in India is naturally quite qualified to settle the whole matter. The editor very wisely considers that no good result can follow from prolonging the discussion, and most people will agree with him.

AMERICAN.

The Educational Review (New York, January).—1 "Higher Education in the United States" is a thoughtful and yet practical paper. The author is Mr. Seth Low, who having graduated at Columbia College, New York, in 1870, returned to it as President in 1890, having in the meanwhile left the Educational field and carried his training into the world to test it there. The conclusions of such a man are valuable. He believes that Education has during the last twenty years been influenced in the United States by two strong currents, a "world" current and a national current. "The world current is the demand that has been felt everywhere for the recognition of new studies as of equal intrinsic value, in these days, with the old humanities. This pressure has come specially from two directions: from the modern languages and from the many new developments of science." The response to these demands has been twofold; "first, by the establishment of parallel courses leading to different degrees; second, to some extent, by the adoption of an elective system". The latter system (which is practically our system of optional branches) reflects, however, in a greater degree the national current. He asks if these parallel courses afford a liberal education? The author believes not and holds that the classics must be retained for all. The Columbia system resembles the old Scotch system referred to on another page. The *College* gives only the B.A. Degree, which represents a liberal education. B.A.'s proceed to their *University* course, which may be Professional, leading to M.D. LL.D., &c., or non-Professional, leading to M.A. and Ph.D. (By the way, it is not generally known that the Scotch M.A. Diploma confers also the honour of Ph.D.). We cannot follow the President into details showing how the elective system works; but proceed to his admission that the liberal education is designed to produce not scholars but something better. "The American Colleges have not themselves made great scholars, but the American Colleges have produced in great numbers broad-minded men of large views, of high ideals, and of a lofty patriotism. Scattered all over the land they have been everywhere as salt

64

among the people, an influence at once to preserve and purify." The following closing remarks are well worth inward digestion.

"Thus far, I have contented myself with observations on the things which I see. In closing, as one who has carried his college education out into the world, and tested it there, and who now has returned to the educational field to concern himself with the problems that are found there, I want to bear my testimony to the value of this thing which we call the higher education. It is doubtless true that the college graduate entering upon a business career is at a disadvantage during the first few years of his business life, as compared with those who entered business when he entered college. If, however, the man has a capacity for business, I venture to say that in five years, certainly in ten, he will find himself more than abreast of his friend who did not go to college. The trained mind can master the problems of business better than the untrained mind, as it can master other problems better for which it has itself any natural capacity. Beyond that, the man himself, outside of business, will have more resources, and is likely to be a greater power in the community in which he lives. When it is contended that college-bred men rarely succeed in business, it is to be remembered that it is currently believed that ninety-five per cent. of all men who engage in business sooner or later fail. It is only the select few in any department of human activity that conspicuously excel, and it may easily be that the tastes which lead men to go to college are not frequently found in combination with what I may call rare business genius. I venture to predict, however, that should such a combination exist, a college education, so far from unfitting the man for a business career, would make him a power in the business world beyond all his compeers who had not been so favored."

2. "Developing Literary Taste in Students" by E. T. McLaughlin of Yale, is a plea for the cultivation of the "æsthetic thrill". 3. "Status of the High School in New England" by C. H. Douglas. 4. "Relation of Arithmetic to Elementary Science" by Wilbur S. Jackman, who apparently had a very rough time of it as a boy over his 'sums'. He says "When one looks back over his schooldays, no other subject looms up in such proportions as arithmetic. It is the one thing which consumed his time and absorbed his energy. Goaded on by the promise of future reward we unceasingly and unlovingly toiled. But now, when in later years we stretch out our hands to seize the promised reward, we find it turns to ashes. It is no wonder then that an outraged generation grown to the estate of manhood, should cry out against arithmetic and try to drive it almost wholly from our schools." And why this hullabaloo? Because Arithmetic has been misunderstood. Arithmetic is not a 'thought study' but a 'form study'. The relation of form studies to thought is this, "external energy, referred to some object as its source, arouses to activity the nerve centres, and the individual then vests this externality,—the source of the energy"—with form, outlines, and all other distinguishable properties. Now arithmetic—as representing the Mathematical element in Education,—is that particular form-study

that satisfies the insatiable and imperative demand for accuracy, for 'concepts' are worse than nothing if they are not accurate; it supplies the qualitative part of education as opposed to the mere quantitative. This understood, the rest is easy. Arithmetic should not be isolated, being useless and intolerable *per se*, but should permeate all our studies, and the writer shows how he would do it. We really cannot give a definite opinion, as the school we went to was of the type dear to Mulcaster and did not condescend to teach arithmetic at all, that would have been an insult to the humanities; but we fear that Mr. Jackman's educational progeny would be uncommonly like jackasses. 5. "Tests on School Children" by E. W. Scripture of Yale College, gives a series of tests for defects in children, as for Memory, Consciousness, Sight, Hearing, &c. We can heartily agree with the writer's object, for many a thrashing have we endured for supposed ignorance, carelessness, or obstinacy, when really, owing to short-sight, blackboard and map were alike undecipherable.

Education (Boston, December). 1. "The best College Education for the Physician", by Dr. Thwing, is a collection of letters upon Medical Education by many eminent teachers in the American Medical Schools. 2. "A Great English Grammar School," by Arthur Inkersley, is an account of the Birmingham Grammar School by a former Captain of the School. The writer mentions the names of many former pupils, among them the late Bishop of Durham, Dr. Lightfoot; the present Bishop, Dr. Westcott; and the Archbishop of Canterbury, Dr. Benson. Mr. H. A. Holden the well-known classic, also hailed from Birmingham and, in another sphere, Mr. Theodore Child, the contributor to American Magazine Literature, and, last but not least, the novelist Grant Allen. 3. "Comenius," by W. S. Monroe, sketches the life and describes the writings of the "Evangelist of Modern Pedagogy", as the author calls him. 4. "The Scotch School of Rhetoric", II., by A. M. Williams, is mainly occupied with a critical account of Kames' Elements of Criticism". 5. "A Study of Browning's Poetry", by May MacIntosh, Pd. M. (what-ever these letters may mean) contains little but quotations from the Poet. 6. "Notes on Principles of Education", Part VI, by Dr. MacVicar, is a collection of little didactic essays on copy-book aphorisms.

The Journal of Education (Boston and Chicago, 29th December) contains the first of what promises to be a lively series of articles on "The Quincy Movement". Quincy is a New England Town, managed in the good old New England fashion, which was once the old England fashion, and the old Teutonic fashion before that. The townspeople hold an annual meeting at which they elect Boards to conduct the town business and vote appropriations of money for schools, highways, &c. One of the

Boards is the School Board, the members of which have to perform very onerous duties and are expected in person to visit and examine the schools regularly. About 1872 the Quincy Board came to the following resolutions about their schools:—

"1. The results reached in the different schools of this town are very *unequal* and there must be a reason for it.

"2. The *best* results are *poor*, not at all commensurate with the amount of money and effort expended to secure them; the *poorest* are *abominable*.

"3. All our school work savours too much of the mechanical; is unnatural and unphilosophical according to the dictates of common sense.

"4. We know little about these faults and weaknesses except that they exist, and nothing about ways and means to remedy them.

The last idea certainly was a new one, rarely if ever cherished and fostered before in the mind of a school committee-man of that period."

Like honest Miles Standishes they set themselves to discover and apply a remedy. How they succeeded will be told in subsequent numbers. Dr. Klemm supplies an interesting article on the numerals, Roman and Arabic, and their evolution. It is illustrated by a portrait of Adam Ries, which shows that the author of the first School Arithmetic was no Adonis.

INDIAN.

The Christian College Magazine (January)—1. "God and the Bible" by the Rev. Dr. Watson. 2. "The Syrian Church in South India" by B. C. Chakko, B.A., is a vigorous onslaught from the orthodox side upon Mr. Rae's scepticism. The combatants do not appear to carry the matter much farther than the *impasse* reached by Dr. Barnell and the Rev. R. Collins many years ago. We do not profess to give an opinion, but we think some parties to the controversy give too little weight to the mere force of tradition. The results of much modern historical enquiry has been to lead many thinkers to attach more importance to traditions long ago dismissed as myths; and to admit that ancient and mediæval historians were not all fools or knaves. But the discussion is a curious one as indicating how much sound and fury may be aroused by what is after all an incident of quite minor historical importance. Mrs. Sathianadhan's interesting story of Hindu Life is continued, and the number includes a full report of the proceedings upon the Christian College Day.

The Punjab Magazine reprints Miss Carr's paper on the education and training of teachers which has already appeared in our pages. The other articles all deal with Female Education. The most interesting

is by a Native Lady, *Strimati Hardevi*, who pleads feelingly for the rights of her sex. She demands such alteration in social customs as shall permit of women's education being more thorough. As to the smattering some of them now obtain, "it were far better they were not at all given such a superficial training. It often makes them conceited, disobedient, fond of reading trash not at all calculated to raise their mental or moral calibre." The authoress thus enumerates the hardships of women. (1) The invidious distinction made between boys and girls in their treatment when infants; (2) their being kept illiterate; (3) early marriage; (4) unequal marriage; (5) enforced widowhood; (6) exclusion from inheritance; (7) the husband's right to marry a second or even more wives during the lifetime of the first. Truly, a gruesome catalogue.

REVIEWS AND NOTICES OF BOOKS.

CONSTABLE'S ORIENTAL MISCELLANY OF ORIGINAL AND SELECTED PUBLICATIONS.
VOL. IV. LETTERS FROM A MAHRATTA CAMP DURING THE YEAR 1809.
Westminster. *Archibald Constable & Company*, 1892. Price Six Shillings.

These letters descriptive of the character, manners, domestic habits, and religious ceremonies of the Mahrattas were written by Thomas Duer Broughton, formerly Commander of the Resident's Escort at the Court of Scindia, at the beginning of the present century. They now appear in a new edition with an introduction by our late Governor, the Right Honourable Sir M. E. Grant Duff, G. C. S. I., F. R. S. In the introduction, Sir Mountstuart Grant Duff accounts for the origin of and circumstances under which these letters were penned. Colonel Broughton had no merit of style save that of straightforwardness, and little of imagination, except when some more than ordinary event excited him. But as the editor remarks, the writer's matter-of-fact method of treatment brings home to the mind the truthfulness of the picture far better than it could have been brought by a more brilliant presentation. The letters are a striking commentary on the state of the country then and now. The return to such scenes as these letters describe would be easy and sure 'if the power, which saved and saves India from tearing her own vitals, were to be withdrawn for a single lustrum'. In the words of the Editor, "The only influences which are working directly towards rendering it possible for India to govern herself, if Great Britain ever got tired of her Asiatic experiment, are the habit of peace, and the habit of justice. Our army, our police, our codes, our fiscal system; these, and I think these only, are bringing at all nearer the end which some political philoso-

phers have put before their mind—the abandonment of a regenerated India to its own devices. Many of our other useful and even admirable works have a very complex effect. Education, excellent as it is, has introduced many new elements of disintegration. Railways, telegraphs, and other facilities of intercourse could be used quite as freely by the lawless as by the law-abiding, if we were not there to look after them."

Colonel Broughton's Letters are indispensable to the student and the reader who wishes to know something of the inner, every-day life of the Mahrattas. In their day the latter were a standing obstacle to the pacification of India through the supremacy of the British arms. The book was therefore very appropriately dedicated to "the Marquis of Wellesley, K. G., the acute detector of Mahratta wiles, the firm repeller of their insolent pretensions, and the formidable barrier to their ambitious projects; their vigorous opponent in time of war, and their generous pacificator in the hour of victory".

The book is handsomely bound, beautifully printed on first-class paper, and is profusely illustrated. Mr. Constable is rendering the public a service by his publication of the *Oriental Miscellany*.

TEXT-BOOK OF ENGLISH HISTORY from the Earliest Times. For Colleges and Schools. By OSMUND AIRY. In three parts. Price Two Shillings each. With five maps. New and Revised Edition
LONDON, *Longmans & Co.*, 1893.

Although this work now appears in a different form and colour, it is practically the same as that which appeared in one volume in 1891. The book was then somewhat harshly and severely criticised in England. The book, however, had some sterling merits, and Mr. Osmund Airy has acted wisely in subjecting his work to a strict examination and in issuing it in the form of a new and revised edition. Misprints have been put right, and certain details corrected or modified. There is nothing remarkable in the book as regards matter, arrangement, and style to distinguish it from other school histories; but among these latter it is now fitted to take a prominent place. The book is intended 'for teachers and for those students who, while their knowledge of facts is incomplete, are mature enough to desire to connect events with their causes and effects, and to feel an interest in constitutional questions'. To assist the learner in getting a general view of the different periods, some care has been taken in the headings of books and chapters and in the accompanying summaries. Numerous footnotes direct the enquiring student to the author's authorities. The book is simply and plainly written and is a sufficient guide to any ordinary examination in English History.

LONGMANS' READINGS IN MODERN PROSE, for use in High Schools; selected and annotated by JOHN ADAM, M.A., Pachaiyappa's College, Madras: LONDON, Longmans, Green & Co.

Messrs. Longmans deserve every credit for the series of school books, suitable for use in India, which is being issued by them. We have already noticed their Indian School Grammar by Messrs. Salmon and Cooper-Oakley, and the present work is not less eminently adapted for the purpose. Though it is not expressly set forth on the title page that the book is intended for Indian schools, yet the name of the compiler, Mr. Adam, is sufficient guarantee that Indian requirements have not been lost sight of. The selection of pieces is admirable. They are varied in interest, ranging from Darwin's account of his visit to Terra del Fuego in the Beagle and Sir Edwin Arnold's glowing pictures of rural Japan, to Russell's account of Balaclava and Lucy's Scenes in Parliament. One admirable feature of the book is that the selections are obviously independent. Anyone who has had to do with the readers produced in such quantities lately, knows how wearisome it is to encounter always the same hackneyed anecdotes and the same trite moral lessons, culled often from writers very little read at the present day. Nothing of the kind can be said of the book before us; the selections are almost all from copyright works, some of them of the most recent date. The pieces are chosen as containing some incident or topic of sustained interest and are long enough to allow in each case of sufficient development to render them intelligible by the aid of the brief, incisive introduction prefixed to each piece. The annotation is merely on unusual and unfamiliar names and expressions, and is always brief and to the point.

The printing and get-up of the book are excellent, and it is to be hoped that the Standing Text-Book Committee will include this excellent little volume in their list. In any case its advent should be hailed with delight by the numerous schoolmasters who have been in utter perplexity as to what Reader to introduce into their High School Forms.

CASSELL'S ENGLISH DICTIONARY, based upon the *Encyclopædic Dictionary* by John Williams, M.A. Price 3s 6d.

CASSELL'S LATIN DICTIONARY revised by J. R. V. Marchant, M.A., and Joseph F. Charles, B.A., (Latin-English and English-Latin). price 5s.

The former of these Dictionaries runs to 1,100 pages and contains the explanation of over 100,000 words and phrases. To say that it is based upon the *Encyclopædic Dictionary* by the editor of that monumental

67

work himself—is to say that it can claim to possess a very complete and very varied vocabulary. The arrangement is convenient and much space is saved by employing the symbols with which users of the miniature Cyclopædia are familiar. We confess we regret the absence of a complete etymology, so beneficial from an educational point of view and so useful to those who, like our students, learn English as a foreign language.

We are accustomed to cheap English Dictionaries, but we do not know where we should turn for so complete and useful a Latin Dictionary at the price of 5s. It includes Proper names, and furnishes them with Mythological, Historical, and Geographical notices, quite sufficient for the ordinary schoolboy. The supply of illustrative quotations from the Classics is more plentiful than is usual in dictionaries of this scope, and yet they are essential; the only satisfactory way in which the young Latinist can detect and remember the various shades of meaning of a word, is to be familiar with its actual usage by the best classical authors.

Both Dictionaries are remarkably well-printed, easy of reference, and handy in form.

THE TWO SERGEANTS.—This is a very simple little play from the Italian, which was translated by Mrs. W. Dumergue, with a view to its performance at the Calicut Union Club. The *dramatis personæ*, some twelve in number, are all males and the piece would therefore be very suitable for performance by a College Dramatic Society. It would however need a little condensation in parts, particularly in Act III., before it would be entirely fitted for representation under the conditions which usually obtain in such societies. The dialogue is good and spirited, and as far as can be judged, the translation is excellent. The little drama, can be confidently recommended to any secretary of a dramatic club who is desirous of breaking with tradition and presenting some variety on the usual attempt—ending too often in atrocious murder—to enact Shakespeare's dramas. The book can be obtained from the Codialboil Press, Mangalore.

FULL NOTES ON BARROW'S READINGS IN POETRY, by V. Aiyasami Aiyar, Part I. MADRAS: K. Murugesu Chetti.

We are asked us to review this. It is not worth review and we are surprised both compiler and publisher were not better advised than to keep clear of us. Here are the notes on the first line of the first piece. "Spacious, wide. Noun form is 'spaco'. Firmament. Heavens. On high. Situated at a great height. An adj. phrase qualifying 'firma-

ment." After a course of this kind of thing the pupils naturally become quite idiotic and so in the last piece have to be provided with such pabulum as, "*Beauteous. Beautiful*". "*Messenger. One who brings some news.*" "*Woods. Large and thick collections of trees.*" But enough. We commiserate Mr. Barrow, for the knowledge that such parasitical publications are about must cause many schoolmasters to think twice before using his carefully compiled Readers.

THE FOURTH FORM READER, selected and edited by W. E. HOARE, M.A.,
Second Edition: MADRAS, *Srinivasa, Varadachari & Co.*

On the whole a good collection, suitable for the Standard. We confess we should like to see Lamb's rather dreary version of 'As You Like It' replaced by something more likely to interest boys; especially as it forms nearly a third of the prose. The book is well printed with good type on good paper.

CALENDAR OF THE VICTORIA COLLEGE, PALGHAT, 1892-1893.

This is a model of what such a Calendar should be, and as such we commend it to other Principals who may meditate following in Mr. Barrow's footsteps. It also marks the high numerical position to which Mr. Barrow has raised this Institution. We see there were in June 1892, 131 students in the F.A. Classes, 242 in the Upper Secondary Department, and 110 in the Lower Secondary, or 483 in all.

THE ASYLUM PRESS ALMANAC:

THE ASYLUM POCKET BOOK,

THE ASYLUM SHEET CALENDAR:

These hardy annuals are again before us, punctual as the 1st of January itself. The Almanac is bulkier than ever; few people, we are sure, even of those who use it constantly, are aware how much useful information, especially on all Government matters, are stored up in its pages. The only weak point which constantly attracts our attention in the Almanac is the indexed table of contents, which seems to be drawn up on no particular system, so that it is sometimes easier to find a reference in the book itself than in the table. The minor publications, the Pocket Book and Sheet Calendar, are equally useful on a less ambitious scale. If it were only to produce the Almanac, the Lawrence Asylum Press would justify its existence.

VICTORIA TECHNICAL INSTITUTE SCHOLARSHIPS.

The Council of the Victoria Technical Institute, with a view of enabling Teachers to receive such superior instruction in Technical subjects as shall enable them to conduct classes therein and to prepare pupils for the Government Technical Examinations, and Industries, offers sixteen (16) stipendiary Scholarships for which early application should be made.

- i. Six (6) Scholarships in *Engineering (Surveying and Drawing)*: to be held at the Madras College of Engineering.
- ii. Ten (10) Scholarships in *Art*: to be held at the Madras School of Arts.
2. In the case of a Teacher of the Collegiate Grade (Graduate) being a Licentiate in Teaching or holding a Normal or an Ordinary Certificate, or who has passed the School-management Examination, the stipend will be of the value of Rs. 30 *per mensem*.
3. In the case of a Teacher of the Higher Secondary Grade (F.A.), holding a Normal or an Ordinary Certificate, or who has passed the School-management Examination, the stipend will be of the value of Rs. 20 *per mensem*.
4. In the case of a Teacher of the Lower Secondary Grade (Matriculate), holding a Normal or Ordinary Certificate, or who has passed the School-management Examination, the stipend will be of the value of Rs. 13 *per mensem*. Scholarships for Matriculates will be given (1) only at the School of Arts, (2) only after they have passed the Lower Examination in Drawing.
5. Applications will be entertained from Teachers qualified as above, who being engaged in the Town of Madras, are willing to attend the School of Arts, between the hours of 7-8.30 A.M. and 6-7.30 P.M. Such scholarships, if granted, will be at the reduced rates of Rs. 20, Rs. 15 and Rs. 10 respectively.
6. In respect to at least half, of the Scholarships preference will be given to Teachers of the Collegiate Grade.
7. Other qualifications being equal, preference will be given to applicants actually engaged in teaching in schools whose managers are desirous of opening Technical classes, in affiliation with the Institute or otherwise. Applicants recommended by Municipalities, Local Boards, or by Local Committees desirous of opening evening or other special classes, will also receive preferential attention.
8. Stipendiaries will have to pay their own travelling expenses and tuition fees, if any.
9. The stipends shall be tenable ordinarily for nine months in the College of Engineering and in the School of Arts, but may be extended for a further period, not usually exceeding three months, on a certificate from the head of the Institution in which the student is studying, to the effect that the student is worthy of such an extension and that it will be beneficial to his studies.
10. Stipendiaries shall be subject to the rules for Students of the Government Teachers' College, so far as these are applicable.
11. Each stipendiary shall also be subject to all the rules and regulations of the institution in which he is studying and shall be prepared, when called upon in the course of his training, to take a part in its teaching.
12. Each stipendiary shall enter into an agreement in the following form:—
"I, A. B., having been appointed a stipendiary scholar of the Victoria Technical Institute, and having been admitted under the rules relating to such scholarship as a student into the, do hereby bind myself, in consideration of the due payment of my stipends and of such admission, to study for the general test or tests prescribed for such scholarships and to remain while so studying a pupil of the above Institution, and whilst there to abide by the rules from time to time prescribed for the conduct of its students and for the conduct of scholars of the Victoria Technical Institute; and further, on completion of my course of study to teach the subject in which I have been trained either as part of my ordinary duty or for reasonable remuneration, as a special teacher, for a period of three years; and I further bind myself, in the event of my not abiding by this agreement, to refund to the Council the amount received by me in stipends, unless wholly or in part exempted by the Council on the recommendation of the Director of Public Instruction."
13. With reference to this agreement, it should be noted that it is impossible in the present tentative stage to lay down definite rules for future teaching. If the student is already a teacher, it is presumed that his managers, having granted him leave for the period of training, will employ him in teaching his special subject as part of his ordinary school work. If the student holds no appointment, the Institute will endeavour to procure him one wherein his special knowledge will be made use of. In either event, or failing

these events, the Institution will endeavour to arrange for the opening of evening or other extra classes for which the teacher shall receive special remuneration, i. e., Rs. 3 for every pupil that passes the Lower Examination and Rs. 6 for every pupil that passes the Higher Examination. By the last clause it is intended that, on any difference of opinion as to the due carrying out of the agreement, the Director of Public Instruction shall be referred to as an independent arbitrator.

Any further information can be obtained on application to the Secretary, Victoria Technical Institute, Pachaiyappa's College, Madras.

JOHN ADAM,
Secretary.

MADRAS, 15th January 1893.

INDIAN STUDENTS IN ENGLAND.

In the Previous Examination of the University of Cambridge, N. B. Cama (St. John's) has passed in Part I., *First Class*; also in Part II., *First Class*. Asghar Ali (Christ's) in Part II., *Second Class*; S. Q. Huda (Cains) *Third Class*; N. C. Ram, *Fourth Class*.

The following have passed in the Additional Subjects. Mechanics *Second Class*: Asghar Ali (Christ's); Tulsidas Jeysingbhai Desai (Christ's); Mustafa Hosain (St. John's); N. N. Saher (St. Catherine's).

Yusuf Ali (St. John's) has passed the Inter-Collegiate Examination in Class I.

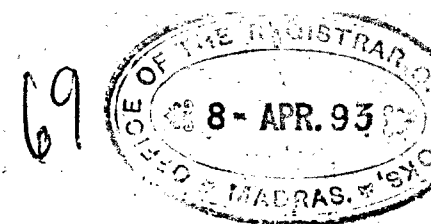
Prabh Dial, B.A., Barrister-at-Law, has passed the LL.B. Examination of the University of Dublin, standing first in the list.

Mr. Ahmed Sultan Khan and Mr. Aftab Sultan Khan passed in Part I of the Previous Examination last October.

The Council of Legal Education have awarded pass certificates to the following Students: Gokhalbhai Bapuji Desai, Lincoln's Inn; Lakshmi Das Sawhny, Inner Temple. Both had appeared in the Honours Examination. At the Pass Examination, the Council awarded pass certificates to Shaikh Mohammed Abdul Zafar and Syed Khelafat Hosein, both of the Inner Temple. To Nanabhoy Nowrojee Burjorjee, Mahmoud-ul Huq, and Tha Shway, all of the Middle Temple. To Pundit Mul Raj, of Lincoln's Inn. To Pirthi Nath Razdan and Tranquebar Strinivasa, both of Gray's Inn. The following students passed a satisfactory Examination in Roman Law: Sahibzada Aftab, of the Inner Temple; Mohammed Wahiduddin Ahmed, Asad Ali Khan, Manockjee Rustomjee Mehta, and Shaikh Mohammed Yehya, all of the Middle Temple; Chunilal Bhalabhai Desai and Kumar Shri Ranjitsinhji, both of Lincoln's Inn.

The following were among those called to the Bar on January 26: Moti Lal Kaistha, Pundit Mohan Lal, W. Battenberg, Rhoda Mull, Tranquebar Strinivasa, Mr. A. D. Patell, and Mr. Lakshmi Das Sawhny.

M. Mohan Agarwala, B.Sc., Gray's Inn, has passed in the Second Division of the LL.B. Examination of the University of London; and Dorabji M. Bahadurji, Middle Temple, has passed in the Second Division of the Intermediate Examination in Laws, of the same University.—*Indian Magazine and Review*.



THE INDIAN JOURNAL OF EDUCATION

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The Editor begs to remind all LITERARY correspondents, as well as publishers forwarding books, magazines, etc., for review, that, to ensure attention, they should be addressed to him at PACHAIYAPPA'S COLLEGE, MADRAS; and, for publication in the succeeding issue, should reach him not later than the 20th of each month. All BUSINESS communications should be addressed to the Publisher.

EDITORIAL NOTES.

Our first duty must be to thank our many friends, both in the press and in private, for their heartily expressed good wishes, and not for good wishes alone, but for promises of active support. These promises have, in some instances, already been fulfilled, and we are confident that in every instance they will be redeemed on demand. All may feel assured that—whatever the measure of success may be—no effort will be spared to make the contents of the Journal varied and interesting to all.

We hope before long to complete our arrangements for obtaining a monthly page of news items from the different Educational centres. While keeping a warm corner for Madras and being conceited enough to think that Madras is as go-a-head as any district in India, we are anxious to learn, and draw our means of instruction, from all quarters. And this not only or mainly on account of the passing interest of the item, but because it is by study and

comparison of methods alone, that the final selection can be determined. Taking the most important department of all, we believe the University for the Indian environment is yet to seek.

* * * *

We commence this month a series of prize competitions, the first being a Paraphrase. This department, which will be modelled on the translation column of the *(English) Journal of Education*, will be conducted by Mr. M. T. Quinn, M. A., Professor of English Language and Literature, Pachaiyappa's College, whose name is a guarantee both for accurate scholarship and judicial fairness. We hope in our next number to open a Mathematical Department, which will be under the management of Rai Bahadur P. Runganadam Mudaliyar, M. A., for so many years Professor of Mathematics in the Presidency College, Madras, who has kindly consented to undertake the task. The remarks made above of Mr. Quinn apply equally to Mr. Runganadam, and we trust our readers will make the tasks of these gentlemen as onerous as they certainly are honorary.

* * * *

Perhaps the most generally interesting and striking item of news, since our last issue, is the announcement of the determination of the Madras Government to throw open to competition three places in the Provincial Civil Service. The successful candidates will be appointed Probationary Deputy Collectors on a commencing salary of Rs. 250 a month. If the result of this examination be so successful as to warrant its repetition and these competitions for superior posts become the general rule all over India—if, as we believe it will come in time, all posts be thrown open to competition under such conditions as are suited to each department, nothing less than a revolution will be effected in the aims and even methods of our University Education.

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As to candidates, the Government have introduced what, for Madras at least, is a valuable restriction. Practically the competition is limited to M.A.'s and First-Class B.A.'s. Now, speaking again solely for Madras, we know that, except in a few cases, there is the greatest indifference among students about their Class. The weaker sort have, of course, to strive all they know to scrape through at all, but the fairly good one, who is sure of his pass, is

70

strangely reluctant to exert himself that 'little bit extra' which would land him in a First Class, which is practically honours. But of 2,679 Bachelors of Arts at present on the rolls of the Madras University, only 102, or 3·8 per cent., have taken a first class. Since the new rules came into force in 1887, things have indeed improved somewhat. Of 1,471 graduates under the old system only 26 or 1·8 are first class men; while of 1,208 graduates under the new, the honour has been gained by 76 or 6·3 per cent. The total number of Masters of Arts is but 56. The privilege of admission to the competitive Examination for the Provincial Civil Service will give a most valuable stimulus to our better students to read for honours and so raise the whole tone of the classes and the standards of instruction.

* * * *

A very curious fact was observed on turning to the M. A. list in the Calendar. Of 56 Masters of Arts, only 4 took a first class in their B. A. Examination. Also, of the 47 as to whose occupations we are informed, 27 are teachers. The conclusion seems irresistible, that the first class men, being quickly drafted off into Government employment and the legal profession, have no time or inclination to pursue their studies; while the inferior part, drifting into teaching, find that it tends to their professional advancement to prosecute their Arts studies to the height of M.A. We fear, however, that the compulsory L. T. for graduates who become teachers will interfere sadly with this tendency.

* * * *

The Indian air is still surcharged with convocational eloquence, which makes our regret, expressed last month, all the deeper that in Madras the Chancellor or Vice-Chancellor does not supplement the oratory of the day. The subjects discussed, too, have been of more than usual importance and will afford plenty pabulum for discussion.

* * * *

Another matter on which we commented last month receives additional point from the ceremony observed at the Convocation of the Bombay University. The order of procession was as follows.

THE ASSISTANT REGISTRAR.

FELLOWS (two and two)

EDUCATIONAL INSPECTOR, CENTRAL DIVISION

JUDGES OF THE HIGH COURT (two and two)

THE LORD BISHOP
A MEMBER OF COUNCIL
THE BOARD OF ACCOUNTS (two and two)
THE REGISTRAR
THE SYNDICS (two and two)
THE DEANS (Presidents of Faculties)
THE VICE CHANCELLOR
THE CHANCELLOR

"The procession advanced," says the *Bombay Gazette*, "till it reached the steps of the *dais*, where it halted, and formed a double line, each pair of Fellows separating to the right and left, through which the Chancellor advanced to his seat, followed by the University officers and the Fellows in the order of precedence. The Fellows saluted the Chancellor as he passed them. After saluting the Chancellor, the Deans took the places provided on the right and left in front of the Chancellor's seat. All having taken their seats, then followed, on behalf of the candidate for a Degree, the supplication by the Dean of the Faculty in which he graduated; the passing of a Grace by the Senate for the admission to the Degree; the presentation by the Dean to the Chancellor; and the admission to the Degree by the Chancellor. A declaration was then made of the Degrees conferred."

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In Madras the supplication of the Degrees and the passing of the Graces take place 'upstairs', though there is no reason why the whole ceremony should not take place *coram publico*. But this is a minor matter.

* * * *

As the Universities of India were formed on the model of the University of London, they may well watch with interest the new phase of transition upon which their prototype has entered. Negotiations for a long time in progress for the reorganization of the existing University as a teaching institution came to an abrupt conclusion last year, owing to the impossibility of reconciling all the various conflicting interests involved in the change. A scheme hastily conceived and imperfectly worked out was then suddenly sprung upon the House of Commons for the establishment of a second University in London, to be called 'The Albert University'. The House, more amenable than the proposers to the pauser,

Reason', shelved the nascent project until further evidence, promised by the supporters of the present University, could be laid before the Royal Commission appointed to enquire into the whole question. The University of London has taken advantage of the interval to raise the question once more and make a final effort to propose a reasonable basis of negotiation that would avoid the necessity of establishing a rival near its throne.

* * * *

The modification of our Indian Universities in the same direction was advocated by Lord Harris at the recent Convocation in Bombay, and is distinctly in the air in Madras. We accordingly print on another page a copy of the new scheme adopted by Convocation, on the 17th of last January, for the reconstitution of the present University as a teaching institution. The scheme, as now approved, has been adopted by Convocation as a basis of conference with the Senate, and of negotiation with the various institutions affected thereby, and is to be laid by the Chairman of Convocation before the Royal Commission. Convocation has evidently seen the unwisdom of having two Universities even in the largest city in the world, and has, by sundry judicious concessions, now passed a scheme which offers a fair basis of settlement, and minimizes the chances of the visionary 'Albert University' ever emerging from the Land of Shadows. The purview of the Albert University was restricted to the London Colleges. The reconstituted University now proposed by Convocation retains the Imperial character of the present institution as an examining body, but introduces a complete re-organization for local teaching purposes suited to all the varied requirements of modern London.

* * * *

We note from the proceedings of Convocation that the London graduates are still very jealous about the value of their Degrees. This was shown by the rejection at the recent Convocation of two motions—of one to the effect that certain other examinations should be accepted in lieu of the preliminary examinations of the University; and of another by Miss S. Bryant, D.Sc., proposing that the words "The University not to have power to grant Honorary or *ad eundem* Degrees, or to allow of procedure to a higher Degree without Examination" should be omitted from the new scheme.

* * * *

Liberalism seems to be growing in the University of London, if we may judge by the result of the poll on 17th January, when three graduates had to be selected whose names should be submitted to Her Majesty for selection therefrom of a Fellow of the University. The result of the poll was as follows:—

William Job Collins, M.D., M.S., B.Sc.	...	...	855
Henry Greenway Howse, M.S., M.B.	...	...	642
Alfred William Bennett, M.A., B.Sc.	...	...	218

Dr. Collins is the Honorary Secretary of the London University Liberal Association.

* * * *

Our News and Notes pages bear testimony to the remarkable and far-reaching activity of the new English Minister of Education, Mr. Acland. As the *Daily Chronicle* says, "for the first time in our history, we have an Education Minister with pluck enough to convert the Education Act from a sham into a reality."—The notable fact in connection with Mr. Acland's *regime*, as in connection with his colleague Mr. Asquith's administration of the Factory Acts, is that his reforms are carried out under the powers vested in him by the existing Acts. There is no amending legislation, no wrangling session after session in Parliament over the minutiae of administrative detail; but merely the strong hand wielding the weapons it already possesses. Some will call it bureaucratic, some autocratic; but the bulk of those affected will applaud the action under whatever name.

* * * *

The London County Council, it will be seen, has decided to make a forward step in the promotion and support of Technical Instruction and Education. It was time. If London was as advanced as Birmingham it would have 300,000 in Evening Technical classes instead of 20,000. Of 15,000 youths under twenty in the building trade, only 800 attend classes on construction and drawing. Of 7,000 engaged in cabinet-making, only 120 are being instructed; and so on. But with Mr. Sidney Webb at the prow, and Mr. Llewellyn Smith at the helm, and £80,000 a year on board, this state of things will not last long.

* * * *

A great revolution has been effected, silently and without bloodshed, in America, and through the agency of teachers 'in the interest of scholarly accuracy'. Every American child knows that

Columbus discovered America, or in the American tongue 'A hemisphere', on October 12th 1492, by landing on an island in the Bahamas. The Administration of the American Public Schools appointed a committee of representative educators, to prepare public school exercises befitting the Anniversary of this discovery. The first thing they did was to declare that, as October 12th was 'old style', the date should be changed to October 21st. Not only did they make this declaration, but they got Congress to confirm it and the President to proclaim it; and hence now and to all future time must it be known that the hemisphere was discovered not on the four-century-old 12th, but on the one-year-old 21st. Certainly, with all their spread-eagleism, the Americans have very little sentiment.

* * * *

A writer who makes this change a peg whereon to hang a singularly interesting article in *Education* (*Boston U.S.*), shows that the abbreviations A. D. and B. C. "are not true statements concerning the years to which they are applied". He suggests that A. D. should stand for According to Dionysius, i. e., Dionysius Exiguus who invented the idea in the year 532; while B. C. should be interpreted Bad Chronology.

* * * *

Examination Papers on 'General knowledge' include in America questions on 'Current topics.' Here for example is a paper set at the Examination for Commissioners' certificates in New York State.

1. How many members of the State legislature are to be elected next Tuesday?
2. What celebrated musician died during the last week of September?
3. Who has been nominated for chief judge of the Court of Appeals by the two great political parties in this State?
4. What noted English poet died during the first week of October?
5. What official position did he hold at the time of his death?
6. What well known legislator of this State died recently?
7. Account for the recent loss of life at the West Manayunk tunnel, near Philadelphia, Pa.
8. Who designates Thanksgiving Day?
9. When will our next State legislature convene?
10. What recent event has cast a gloom over the entire country?
11. When will Congress next assemble?

THE BETTER WAY.

Who serves his country best ?

Not he who, for a brief and stormy space,

Leads forth her armies to the fierce affray.

Short is the time of turmoil and unrest,

Long years of peace succeed it and replace ;

There is a better way.

He serves his country best

Who joins the tide that lifts her nobly on ;

For speech has myriad tongues for every day,

And song but one ; and law within the breast

Is stronger than the graven law on stone ;

There is a better way.

He serves his country best

Who lives pure life, and doeth righteous deed,

And walks straight paths, however others stray,

And leaves his sons as uttermost bequest

A stainless record which all men may read ;

This is the better way.

No drop but serves the slowly lifting tide,

No dew but has an errand to some flower,

No smallest star but sheds some helpful ray,

And man by man, each giving to the rest,

Makes the firm bulwark of the country's power ;

There is no better way.—Susan Coolidge.

THE CONVOCATION OF THE BOMBAY UNIVERSITY.

The Convocation of the Bombay University was held on Tuesday 21st February in the Cowasji Jehangir Hall. The recently appointed Vice-Chancellor, Mr. Justice Telang, was unfortunately prevented by ill-health from delivering an address ; but the Chancellor, Lord Harris, made ample amends by a speech full of sound sense and rising at times to eloquence. After some local references and remarks upon the election of Fellows by members of the Senate and the granting of Degrees, His Excellency proceeded to deal with the question, now so widely in the air, of a teaching University. He asked :—

“Ought we to be satisfied with a University that is one for conferring Degrees alone ? Or should we encourage it to aim at something even higher ? A love of learning, only with an ultimate object of gaining such

marks and designations as betoken the point reached, is a legitimate love. There is the demand, and the supply cannot be refused ; but surely the love of learning which ceases only with death, that longing to unravel but a tiny shred of the intricate problem of man's relation to man, of the vast energies which surround us, so utterly uncontrollable in our present state of knowledge, but which appear to obey some natural laws, which may in time be learnt by man, of the mysterious origins of the fell diseases with which we are perpetually baffled—surely that longing to add something to man's knowledge of these and other questions, which now but peep forth on the brightening rim of the dark Unknown ; not for the sake of personal reputation, not for the sake of wealth but for the simple sake of doing some good to mankind, is existent and worthy of encouragement ; and surely it is part of the duty of a great centre such as this to aim at the means of encouraging it. Amongst those who have, in previous years, on this day been rewarded in their efforts to gain the academical prizes offered here, there must be some who would gladly welcome the opportunity afforded by a quiet retreat, where, in the words of Milton, “Wisdom's self oft seeks sweet retired solitude, where with her best nurse, Contemplation, she plumes her feathers and lets grow her wings, that in the fairest bustle of resort were all too ruffled and sometimes impaired,” where they would meet students—students by profession—with whom they could commune, and where they might sit at the feet of some great teacher.

“It is difficult to compare the respective merits of Universities as regards their power of teaching—the University with affiliated but widely spread Colleges, with a University having its Colleges nestling closely around it. But as regards the respective merits of a University which does teach, and one that does not, there can hardly be a doubt. For centuries past have earnest students from far and wide been attracted to those great University centres of thought and culture, which from the means at their disposal have been able to dispense teaching as well as Degrees ; and what I would suggest to you to-day is, that the aim of this University should be a high one, worthy of this grand city in which it rests ; that it should aim at attracting scholars and students to it by the renown of the teaching which it imparts. It may be thought that this idea is too high, but I say nothing is too high for Bombay to aspire to. When I see the wealth of stately edifices which Bombay so largely owes to the public spirit of her citizens ; when I contemplate the great store of charitable aid which is dispensed to her suffering poor through the kindness and thoughtfulness of her wealthy men, I spurn the suggestion that if Bombay sets its mind to the endowment of its University to give it the means of teaching, the object will not be accomplished.

"I am but too well aware, from the reception that has been given to my public utterances on educational questions elsewhere, that these remarks of mine are likely to be construed as indicating the intention on the part of Government to shirk what are regarded as its own duties by laying them on institutions, or private individuals. But if those who criticise what I have said, and may criticise what I say now, were as well aware as I am of the needs of the poorest classes of the many millions of this Presidency: if they knew as well as I know, how many hundreds of villages there are which need improved sanitary surroundings, mainly in the shape of better water, and which may be induced to undertake these improvements with the aid of a little Government assistance, if they knew as well as I know, of the many square miles of jungle tracts, the inhabitants of which are in sore need of better roads to get their produce to market; if they knew of the hundreds of thousands of poor people who are in dire need of medical assistance, but to whom such assistance may by degrees be brought with the addition of Government contributions; if they knew in how many villages there are children requiring some primary education, they would feel as earnestly as I do the enormous responsibility that rests upon our shoulders, of distributing such funds as we have in the fairest possible way to the greatest benefit of the greatest number. They would then appreciate the feelings which actuated me to express a preference for the expenditure of a larger portion of Government funds on the undoubted poor than has hitherto been allotted to them. I must, therefore, acknowledge that in suggesting that there is a wider scope for the efforts of this University, I am looking rather to the voluntary aid of those who having the means may be stirred up to take a sufficient pride and interest in the University of Bombay to help to endow it with a property adequate to enable it to undertake teaching, while at the same time I think that towards such an endowment fund it would be a legitimate thing for Government to make a handsome contribution. I have, therefore, deliberately appealed to those signs of public spirit and benefaction which enlist our admiration and our appreciation every day as we pass through this city, because I not only feel, but I know, that those sentiments still animate the citizens of Bombay. Of my own private knowledge I can say that there are benevolent persons in this city, seeking worthy objects on which to expend their munificence, and I take the liberty of suggesting to such, and to others whose names I may not know, that one direction in which they can worthily extend their efforts is in the establishment in this city of a great centre of learning, which shall prove an attraction to those who are in search of knowledge, not only in India itself but in

other parts of the world, and thereby bring further dignity to the University itself, and credit to the city which it adorns."

THE CONVOCATION OF THE ALLAHABAD UNIVERSITY.

At this Convocation, held on the 12th January, Sir Charles Crosthwaite made his first appearance as Chancellor. His speech was lucid, informing, and sympathetic. We omit only a few short passages of purely local interest.

EXPERIMENTAL CHARACTER OF THE UNIVERSITY.

The progress of an institution such as this can hardly be observed in five years, or gauged by statistics. Five years is but as a minute in the life of a nation and can hardly be reckoned as a day in the existence of an University, which, if it lives at all, must partake of the national life. Its success cannot be measured by the number of those who pass its examinations. Its real work must be sought first in its influence on the teaching of the Colleges which are affiliated to it, and afterwards in the intellectual and moral improvement of the people; in the progress of science and of research. These are effects which cannot be made manifest in a few years: not even in many years. When this University begins to furnish the people of these Provinces with wise instructors, with great moral teachers, with learned lawyers, with careful explorers in the realms of science, and with great original engineers, then it will be able to say that the seed which is being sown has borne fruit and that its efforts have not been in vain. Looking at the work before us from this point of view, we must be impressed with the sense both of its great importance and its difficulty. A new institution always has a difficult task before it. It has no traditions to guide it, no beaten path the course of which it is easy to follow. And here in India the task is, from the necessities of the case, one of more than ordinary difficulty. The Government of the University must be for some time mainly in the hands of foreigners. The system of teaching, the language in which it is given, as well as most of the subjects which are taught, are foreign and strange to the students and to the people of the country. It is true that we have had the very great advantage of the gathered experience of the older Indian Universities: an advantage always to be gratefully acknowledged in this place. But I venture to think that we and they are still experimenting. We are still searching for the most perfect methods of using Western knowledge to educate the Indian mind. In every experimental science it is a great advantage to have independent inquirers at work. And as in Nature the variations in individuals tend to the production of new and suitable species, so it is with human institutions. I believe this was one of the considerations which led Sir Alfred Lyall and others to advocate a new University for these Provinces. And the result has, I think, already been such as to justify their anticipations. What has been done here

in the hope of improvement, and the new departures that have been taken, will be best made clear by considering the objections commonly made to our system of education, and the steps that have been taken to remove admitted defects.

RESULTS OF UNIVERSITY EDUCATION.

By one party the Universities and Colleges have been accused of flooding the country with half-educated young men who will look nowhere but to the service of Government for employment, whose knowledge is superficial, whose conceit is boundless, who are fluent and turgid in language, but have no accurate conception of the meaning of the words they use or the phrases they repeat. We are told by another party that our education is purely destructive, that the old faiths are being undermined, the old principles and sanctions of morality destroyed and removed, the old courtesy of manners and the traditional reverence for age and authority cast off and thrown away with contempt. I will ask leave to detain you for a few minutes by inquiring how far these accusations are true, and what has been done already in Allahabad to remove their causes. There is no doubt that, in the case of some of the older Universities, the number of men who have taken degrees is in excess of the demand for men of that stamp. In older countries, where society has progressed with a natural growth, and has not been forced on or bent aside by outside influences, educational institutions have been created to meet the demand for educated men, not merely, or even chiefly, for Government service, but for the service of the public in the learned professions. Many men moreover have pursued learning for its own sake, and more still have sought a liberal education as part of the equipment with which every man should furnish himself, no matter what his vocation, for his journey through life. But in this country, where the impulse has been given chiefly from outside, where education even of the higher kind has been offered to the people almost gratuitously, where the sphere of employment owing to the backward condition of the people is very limited, and where if learning is sought at all for its own sake it is not such learning as our Colleges undertake to teach, there is a distinct danger in creating a class of needy scholars who, without being sufficiently educated to make their own way in the world, are above and in excess of the demands of the only employment open to them. There are two ways in which this danger can be met by those who have the control of education. One is by making College education more expensive and self-supporting, and restricting it to those whose parents can afford to pay for it, and to boys of exceptional merit, who can win scholarships and contribute to the cost of their schooling. As time goes on it may be found expedient to move in this direction. But in the present state of these Provinces, such a step does not appear necessary or desirable. The other way is by varying the courses of study so as to enable the students, while obtaining a good general education, to qualify themselves for various walks of life.

CHANGES IN THE CURRICULUM.

Now, gentlemen, in the year just ended, the Senate has made a distinct and original advance in this direction. Important changes have been made in the course of instruction in schools, whether terminating in the schools or preparatory to matriculation in the University. Modifications have also been made in the Examinations in Arts, subsequent to matriculation, which will take effect partly in 1893 and partly in 1894.

SCHOOL FINAL EXAMINATION.

As regards the course of studies apart from or previous to matriculation the greatest change is the institution of a School Final Examination, to be conducted and certified by the University. This examination is intended to be of a more practical character than the existing Entrance or Matriculation Examination, and, as its name imports, to serve as a final test for youths leaving school to enter upon industrial and commercial employment. It requires a knowledge of English more serviceable for business purposes, while certainly no less effective for mental discipline, than that required in the Entrance Examination. In mathematics, in history, and in geography, the value of which in the everyday business of life will not be contested, it maintains the same standard as the Entrance Examination. For the knowledge of a classical language it substitutes a searching practical test in the use of a vernacular language of these Provinces, either Urdu or Hindi. Every candidate will be examined in these four subjects; and in addition to these in one or more of the following optional subjects of a practical or technical character, viz., in drawing up to a standard which will be defined by the experience gained in the working of the drawing-classes already established in certain schools; in elementary physics and chemistry, special masters in which subjects have been appointed in certain schools; in agriculture with surveying, as experience shall prescribe in a School of Agriculture; in book-keeping by single and double entry; and in political economy. For the ordinary work of life the training thus marked out, the details of which will no doubt require to be reconsidered in the light of practical experience, will be a better preparation than the literary rudiments prescribed in the existing Entrance Examination. This Entrance Examination and the analogous Final Examination prescribed by the Code of Regulations for European Schools in the Department of Public Instruction have hitherto been the only goal towards which the studies of the higher schools in the Provinces have been directed. In future opportunity will be afforded to all to fit their school training to the demands of after-life, be those demands industrial, commercial, or professional. And the University will give to each and to every such branch of training that recognition which is known to be prized in the higher schools.

ALTERNATIVE ARTS COURSES.

But while the primary end of this School Final Examination is to maintain and test a training for those industrial and commercial pursuits to

which the great majority of school-boys must look forward; a secondary purpose is fully and effectively served, that of fitting those who pass it to enter the University itself, through the Colleges affiliated to it, especially with a view to further application to physical science and mathematics. The certificate of having passed this examination will qualify for either the Literary (A) or the Scientific (B) course of discipline in the University; but it is to be expected that nearly all students holding this certificate will choose the Scientific Course in the Intermediate Examination in Arts and the B. A. Examination. Hitherto under the old regulations the Intermediate Examination in Arts has been the same for all candidates. In March 1893 the first examination will be held under the new regulations lately sanctioned, by which one course (the A Course) is prescribed for candidates preferring a more literary, and another (the B Course) for those preferring a more scientific direction of their studies. A thorough course of logical instruction will be required of all alike, as a fitting introduction to the higher literary and philosophical discipline on the one side, and to the higher mathematical and scientific discipline on the other side, for the degree of Bachelor of Arts.

ALLEGED ARTIFICIALITY OF INDIAN EDUCATION.

The objection that our system of education tends to make men superficial and conceited is, I think, a reproach which might be brought against a proportion of the students of any University and in any country. It must be remembered that a great many men enter the University and begin the course without ever proceeding to a degree. They are satisfied to obtain a bare qualification for the Government service; they are proud if they can describe themselves as Failed F.A.'s. These men necessarily are very partially educated, and they are, I think, the cause of much of the outcry against our system. They have not even learnt the beginning of knowledge; they have not even the far off touch of wisdom to know that they are not wise. I am inclined to think that the rule which accepts a certificate of having passed the Middle Examination, as a sufficient qualification for Government service, is more to blame than those engaged in education for these results. So far as there are defects in teaching, which give cause for this reproach, the University can apply a remedy, and can act on the Colleges by raising the standard and maintaining the strictness of all examinations. Much can be done to cure pretentious ignorance by insisting that every examinee shall really know the subject in which he asks to be examined. Here, too, I think it can be shown that the Senate has not been idle or unwatchful. The area of the examinations in books or subjects has not been extended, but year by year a fuller knowledge and greater accuracy has been exacted. The Intermediate Examinations in Arts and also the Examinations for Degrees have been conducted with more strictness year by year. The proportion of candidates who were passed has diminished, and a higher standard of efficiency has been upheld on both sides of these examinations.

ALLEGED DESTRUCTIVE EFFECTS.

Turning now to the objections taken to our system of education on account of its destructive or dissolvent effects, I notice that the Philosophy Course has been attacked on this ground more than any other part of the curriculum. That there is some truth in this criticism cannot be denied. But this University has already made efforts to meet it. The Philosophy Course for the B. A. Examination, which in Calcutta has become easier, has been made longer and more difficult in Allahabad: and consists of a series of works of the British Philosophers intended to elucidate the development of Philosophy in Britain. The reproach that the Philosophy Course was a mere question of cram and memory is being removed. The examinations are conducted with increased strictness, and thoroughness is exacted from all candidates, whether they prefer a more literary or a more scientific course of discipline. In several distinct matters this University, then, has made new departures. It has instituted a School Final Examination of a practical kind. It has separated the Science and Literary Courses immediately after matriculation. It has greatly added to the thoroughness of the Philosophy Course; and lastly, instead of making honours depend on wider reading, it awards them only for greater accuracy and more profound knowledge of the books and subjects required for a pass.

TRANSFORMING INFLUENCE OF EDUCATION.

It is inevitable, however, that a native of India brought suddenly under the influence of Western thought, should undergo great changes in his intellectual and moral nature. Does not education and the acquisition of knowledge work changes in all of us? The first effect of knowledge is undoubtedly destructive. The old faiths and the old beliefs, so far as they will not stand the test of reason, are corroded and worn away, and the student stands like the first man, after he had acquired the knowledge of good and evil, naked and ashamed in his own sight. But the next step is constructive, and the mischief is caused not by education, but by the failure to complete it. Let any one look at the course of study laid down for the students of this University. It is and must be from the nature of the case, the age of the students and the time at their disposal, circumscribed in area; but I cannot believe that its effect is to change men for the worse. If to bring their minds into contact with some of the best authors, if to introduce them to some of the highest thinkers, and to show them the first beginnings of science: if the effect of this is to impair their manners and to degrade their intellects, then we had better leave them in ignorance. For my own part, I think the critics in this case have fastened on what is not the result of education, but arises rather from incomplete education and from the transition state through which the country is passing. In Nature the state of transition, whether it is seen in the human being or, in the brute, in the hobbledog or the tapdole, is often unlovely and grotesque. If the knowledge acquired is not superficial or parrot-like, but has been digested

and assimilated by the mind. I have no fear for the result. The ancient mind of this country, with its old philosophy, is like a noble piece of sculpture which has lain in the forest until earth and moss have obscured the beauty of its lines. It is the true work of Western education not to change the nature or form of the stone, but to remove the crust and to let the true outline of the work stand out. If the students come to their studies with an open and honest mind, if they labour to understand what they are taught, not only for the sake of a degree and of obtaining a livelihood, though this is an object which must always be before them, but also, to some extent at least, as a means of making themselves happier and better and more useful to their fellows, I have no fear that the teaching imparted to them under the authority of this University will fail in its results, or that the enemy will find any cause to blaspheme. I do not deny or underrate the defects in an education from which all direct religious teaching must necessarily be absent. Nevertheless, I think that it is, to say the least, improbable that a course such as is laid down for the instruction of students in the Colleges of this University, pursued under the guidance of good and able men, can have a bad result on the morality of the students. On one point I can speak with experience. I have had many years' practice in Indian administration, and I am able to bear testimony to the fact that the efficiency of the administration and its purity, especially in the matter of dispensing justice, has made very great progress, and that this improvement is mainly due to the influence of education, and especially of the higher education of which a knowledge of English and English literature has formed the chief part. Let us then go on with our work in faith in its ultimate success.

PHYSICAL EDUCATION.

Another matter in which our system is said to fail is the physical education of the students. Several officers have told me that they do not seek graduates for executive appointments because of their defective physique. And I notice that a native gentleman writing the other day in a Punjab newspaper complains that the course of study entails the sacrifice not only of all the enjoyments of life, but of the source of them all—health. A student, he says, attending a College is distinguishable by his very appearance. The direction or encouragement of physical education is not generally looked upon as within the duties of the Senate of a University. And in England it is for various reasons unnecessary that it should be. But here the habits of the people, the climate, and above all the absence of facilities for outdoor manly sports, are obstacles to physical education, which it needs some organisation to overcome. Much has been done I know by schools and colleges and by the influence of the Education Department to encourage games and manly exercises; and some inter-collegiate competition has been established. A further step might be taken, if not under the instructions yet under the auspices of the University, for establishing an annual competition between the Colleges in cricket, football, and athletic sports, the final matches in which should be played at Allahabad. I believe that this

would give an impetus to physical education. Those who distinguished themselves would be known and a graduate who had won his colours at football or cricket would not find his chances of employment diminished.

OUTLINE OF SCHEME FOR THE RECONSTITUTION OF THE UNIVERSITY FOR LONDON.

(Adopted by CONVOCATION on January 17th, 1893.)

I.—OBJECTS OF INCORPORATION. 1. The purposes of the incorporation of the University to be so defined as to include in addition to the existing purposes the organization of regular and liberal education throughout the British Empire, and especially in the Metropolis and its neighbourhood, and the advancement of knowledge and encouragement of original research.

II.—CONSTITUTION. 2. The University to consist of:—

i. Members—(a) Fellows, (b) Graduates; (c) Professors, Examiners, Teachers, and Demonstrators of the University, during their respective terms of office.

ii. Undergraduates.

III.—SENATE. 3. The Senate shall be the executive of the University, and consist of the Chancellor and 39 Fellows to be appointed as follows:—

i. The Chancellor and 7 Fellows to be nominated by the Crown in consideration of a fixed grant from the Treasury, 3 of such Fellows to be nominated in respect of National Museums and Libraries in London.

ii. The Chairman of Convocation (ex-officio) and 11 other Fellows to be elected by Convocation.

iii. Ten Fellows representing the Faculties of the University, and distributed as follows:—Arts and Music 3, Laws 1, Medicine 2, Science 2, Divinity 1, Technology 1.

iv. The President of University College, London, the Principal of King's College, London, the Presidents of the Royal College of Physicians of London, and the Royal College of Surgeons of England, the Chairman of the Council of Legal Education, and the President of the Incorporated Law Society.

v. Four Fellows representing the Municipal Authorities of London, viz.:—The City Corporation and the London County Council, on condition of an adequate endowment from each authority represented.

4. Members of the Senate other than those appointed under section iv. to serve for a term of six years only, but to be re-eligible, with provision for the retirement of some members every three years.

IV.—CONVOCATION. 5. Convocation to continue as at present, and to retain its existing powers, rights, and privileges, and to include Graduates of the existing University.

6. Convocation to appoint at least two Members of each Board of Studies.

V.—TEACHING STAFF. 7. There shall be a University Professoriate and a staff of Teachers and Demonstrators.

8. All appointments shall be vested in the Senate, and shall be held during their pleasure. The Senate shall have power to appoint members of the Teaching Staffs of the Colleges or other higher educational institutions as University Professors, Teachers, and Demonstrators, with endowments from the funds of the University, on condition that the appointment to such chairs whenever a vacancy occurs should pass to the University.

9. Although the University must be centralised for certain purposes, with its own Lectures, Laboratories, and Libraries, yet the teaching of the University should be given at various centres, according to requirements.

10. The National Museums and Libraries to be available for Members and Undergraduates of the University in consideration of their representation on the Senate, as provided in paragraph 3, sub-section i.

VI.—FACULTIES. 11. There shall be seven Faculties, viz.:—

- i. Arts, ii. Laws, iii. Medicine, iv. Science, v. Divinity, vi. Music, vii. Technology.

All branches of knowledge not included in any other Faculty shall be included in the Faculty of Arts.

12. Each Faculty shall consist of all the persons for the time being answering the following descriptions:—

- i. All University Professors in the subjects comprised in their Faculty.
- ii. Such other Teachers and Demonstrators of subjects comprised in the Faculty as may be recognized by the University.
- iii. The Examiners of the University in subjects comprised in the Faculty.

13. Each Faculty shall appoint—

- (a) Members of the Senate.
- (b) From its own body Members of a Board of Studies.

VII.—BOARDS OF STUDIES. 14. Each Board of Studies shall consist of Members appointed by the Faculty and two Members appointed by Convocation.

15. The powers and duties of each Board shall be consultative only, viz.:—(1) to consider and report upon any matter referred to it by the Senate; (2) to represent to the Senate its opinion upon any matter connected with the degrees and examinations and teaching of the subject of its Faculty; (3) to deliberate, if so requested, in conjunction with the Senate, or any Committee thereof; and (4) to meet and act concurrently with any other Boards or Board of Studies on particular subjects.

16. The Boards of Studies shall also advise as to regulations in connection with Museums, Laboratories, &c.

VIII.—DEGREES AND EXAMINATIONS. 17. The Imperial character of the University to be retained and its Examinations to remain open to all Candidates who have complied with the regulations, irrespective of the place or manner of their education.

18. The standard of attainment for Matriculation and the various Examinations in all the Faculties to be maintained at as high a level as at present.

19. Restrictive regulations as to compulsory intervals of time between Matriculation and the Preliminary Scientific Examination, and the Intermediate Examination in Medicine and M.B. Examination to be abolished; provided always that the usual medical curriculum required by the General Medical Council shall have been passed through by a Candidate before he presents himself for the final M.B.

20. The Examinations in Divinity to be confined to the testing of knowledge, and to be in no way concerned with the religious opinions of the Students.

21. The University to have power to grant Degrees, Certificates, and Diplomas in all Faculties.

22. The University not to have power to grant Honorary or *ad eundem* Degrees, or to allow of procedure to a higher Degree without examination.

23. The University to have power to hold real property, and to accept endowments, grants, gifts, devises, and legacies, notwithstanding the statutes of mortmain.

We seem to be seeking an ideal pupil, not the natural pupil.

Good teachers do not complain, they simply go elsewhere and get better wages.

TECHNICAL EDUCATION.

The following is a summary of the very practical paper, read, as we mentioned last month, before the Scotch Pedagogic Congress by Mr. R. Caird, ship-builder, Greenock.

The reader dwelt upon the enormous waste of material and labour caused by ignorance of the merest technical details. The progress of technical knowledge was already making itself felt in the industry for which he was about to speak, viz., ship-building—it was raising the skill of the average workman. But with greater technical knowledge the excess of material now necessarily given out to allow for bad workmanship might all be saved. On the assumption (for the justice of which he appealed to all ship-builders) that a reduction of scantling to the extent of ten per cent. might be safely effected if we could eliminate the natural carelessness of untrained hands, Mr. Caird calculated that £5,000,000 worth of useless iron and steel, now invested in the mercantile marine of the United Kingdom, might have been saved, to which he added an annual sum of £200,000 spent in coal to propel this superfluity of material. In the course of his remarks he dealt with the system of Sloyd, advocating that such instruction should form an integral part of the education of every workman. Dealing with existing agencies, he pointed out the case of Greenock, where some 10,000 men and boys were employed in ship-building, but where the only available teaching was to be found in the classes of the Science and Art Department, which quite failed to meet the case. What was wanted were workshops and laboratories, where the elements of the subjects could be practically as well as scientifically taught. Youths should receive effective supervision in the workshop, so that their bent and capabilities might be discovered and properly directed. He wanted their training to be such that the operations these youths would be called upon to perform would be so easy as to be intuitive and so instantaneous as to be practically unconscious. In the training adjustable models, preferably made by the pupil himself, should be used, and the pupil should proceed by experiment, trial, and error, the results being recorded by the pupil. Coming to the difficult question of teaching, he condemned the employment of workmen-teachers, who would be too narrow in their teaching, while on the other hand the teacher was apt to under-value technical work. The ideal technical teacher was one who combined the clear brain of the dominie with the strong wrist and dexterous manipulation of the artisan; he must have the sympathy

"prece blanda, ducere quo vellet"

(with blandishing entreaties to lead whithersoever he will).

One practical difficulty lay in the growing power of the trade unions, which naturally—he did not say intentionally—tended to become hereditary, keeping out of their ranks all but the descendants of present members. He strongly advocated that all trades and occupations should be open to all who were competent. Chance had glorious uncertainties, and so he would give a chance to anyone. He had it on the authority of a trade union secretary that under the present system of apprenticeship there was no obligation on the part of the employer to give instruction, or on the part of the apprentice to serve for a definite time. The present system of apprenticeship was chaotic. Again the present was an age of specialization, so that the apprentice in most places could learn nothing more than a section of the trade he was supposed to master. A scheme of technical instruction ought to provide the means for complete instruction in so-related branches; and there should be stimuli to draw them on from one to the other. There were 20,000 seagoing engineers in the British mercantile marine, about 1,000 joining every year, all of whom needed thorough training. Mr. Caird proceeded to lay down a course of technical instruction suitable for such, dealing with the qualities required for higher posts of the profession. He quoted an Italian saying to the effect that "Common sense was once head master in the schools; now she had become a shade, and science, her unnatural daughter, had slain her mother to see what she was made of." He suggested that with the funds available from South Kensington and under the Technical Education Act, complete technical courses should be established, and passing through them should be allowed to abridge the term of apprenticeship. He summed up therefore his ideas as embodying (1) a scheme of preliminary scientific teaching in connection with the school course, (2) practical workshop training between the ages of fourteen and sixteen, and (3) a higher course of practical technical training leading up to a university standard. He had no fear that technical training would have a restrictive effect upon general or literary education.

STATE AID IN ENGLAND.

As very extensive changes have within the last two years been made in the organization of Lower Secondary and Technical Upper Secondary Education in England, we adapt from Mr. Adam's Memorandum, reviewed in our January issue, the following concise account. Such a statement may be found useful in view of the fact that opinion in this country is beginning to move beyond the point whereat preparation for the University or for Government service is deemed

the be-all and end-all of Secondary Education; and that it has moved so far that the Continuation School and the Technical High School are already looming in the distance. In a future issue we shall give an account of the work and organization of such a Technical School.

As already remarked the whole system has been remodelled, and our object is to state succinctly what that system now is. The clamant demand for the change was indeed based on the dissatisfaction with the payment of grants-in-aid 'by results', in the technical sense of that term, *i.e.*, on the result of individual examination of the pupils in all standards and subjects. Opportunity was however taken of the remodelling of the Code in this sense to introduce such additional modifications as would encourage Technical and Manual Instruction in Public Elementary Schools, and so satisfy the demands of those who had been long agitating and working to this end. Details special to infants' and girls' departments being omitted, the following are the curriculum of a Public Elementary School and the grants earned.

(a) OBLIGATORY SUBJECTS.

Reading
Writing
Arithmetic } *Elementary Subjects in Seven Standards.*
Drawing—either with or without other Manual Instruction.

One Class Subject—(after August 1893).

A school teaching these subjects and certified as efficient is allowed a capitation grant of 12s. 6d. on the average attendance of the school or of 14s. if Recitation be satisfactorily taught.

(b) OPTIONAL SUBJECTS.

i. To be taken by classes throughout the school.

Singing
Recitation
English
Geography
Elementary Science
History } *Class Subjects in Seven Standards.*

Not more than two *class subjects* may be presented, though they need not be the same in all the classes.

A capitation grant of 1s. or 2s. according to the report and recommendation of the Inspector for each *class subject*.

A grant of 6d. if the pupils are satisfactorily taught to sing by ear, and of 1s. if by note.

ii. *Specific Subjects* taken by individual children in the upper classes.

Each of these is divided into three stages corresponding to Standards V., VI., and VII.; and (except as hereafter mentioned) no student can be presented in more than two *specific subjects* nor can he be presented for a *specific subject* unless he be also presented in the corresponding standards of the elementary subjects. On this point the 'Instructions to Inspectors' say, "It is not the intention of my Lords to encourage an unpretentious or unreal pursuit of higher studies, or to encroach in any way on the province of higher education," and hence it is recommended that the *specific subjects* should not be attempted where the *elementary* and *class subjects* are weak, or where the school staff is small. Alternative courses are provided in these subjects, but managers may submit courses of their own and they may also submit courses in other subjects not included in the list of the Council, and such subject, if approved, will qualify for a grant. The *specific subjects* at present on the List are Algebra, Euclid, Mensuration, Mechanics, Chemistry, Physics, Animal Physiology, Botany, Agriculture, Latin, French, Domestic Economy, Welsh, German, Book-keeping, Shorthand, Navigation, Horticulture, Cooking, and Laundry Work.

Formerly the grant was 4s. in each subject for each pupil *passing* the individual examination, but from 31st August, 1892, it is 2s. or 3s. (according to the Inspector's report) on each pupil *presented* in each subject.

There is a further grant of 1s. or 1s. 6d. for *Organization and Discipline*.

There is also now a *Fee Grant* of 10s. per pupil in all schools whose managers adopt the regulations under which education has been made free.

Grants for *Drawing* are made by the Department of Science and Art at South Kensington, and the school must satisfy this Department or it will not be considered efficient. Instruction must be given during at least 1½ hours per week, and in all seven Standards. The grant is 1s., 1s. 6d., or 2s. per scholar, according as the school is classed 'Fair', 'Good', or 'Excellent'.

Grants are also given for *manual instruction*, but only in connection with *drawing*. The grant per scholar instructed is 6s. if 'good' and 7s. if 'excellent', provided he has passed Standard IV.

A school may thus draw as a maximum for each pupil in average attendance.

	£.	s.	d.
Fixed Grant	0	14	0
Class Subjects	0	5	0
Organization	0	1	6
Fee Grant (paid by the Treasury)	0	10	0
Drawing	0	2	0
	1	12	6

Besides the grants for pupils in V., VI., and VII. Standards in *specific subjects* and *manual instruction*.

The foregoing regulations are for Day Schools, and the innovations which it is important to take note of are mainly *three*.

(a) *Drawing has been made compulsory*. The arrangement by which this has been effected is rather a clumsy one; but it cannot be doubted that the assumption by Whitehall of the control hitherto exercised by South Kensington over drawing in elementary schools, is a question of months only.

(b) In calculating attendances it is now permitted to reckon time "occupied by instruction in any of the following subjects, whether or not it is given in the school premises or by the ordinary teachers of the school, provided that special and appropriate provision approved by the Inspector is made for such instruction, and the times for giving it are entered in the approved time-table:—Drawing, Manual Instruction, Science, suitable Physical Exercises, Military Drill, Practical Cookery, and Laundry Work. This valuable provision is intended to cover the teaching of a special subject (1) in centres,—as in the case of wood-working in Liverpool or science in Manchester; or (2) by peripatetic teachers,—as in the case of science in Liverpool or London.

(c) In calculating the attendances for capitation grants *all pupils between the ages of 3 and 14 may be counted*. This is an immense concession to the older students. Formerly the attendance did not count unless a pupil was actually in the Standards, so that, as soon as a boy or girl passed Standard VII., he or she could bring no money in the shape of grant to the school and was therefore looked upon as an expensive burden to be got rid of as quickly as possible. Now a moderately clever boy or girl can readily get out of the Standards by the age of 12 or 13 at most, and under this provision can be retained in the school for a year or two, and carry on work in Science, Art, or Manual Practice.

In large towns the School Boards have not been slow to take advantage of these provisions. In the case of Science, a good deal can be done, especially in the lower Standards, with a small amount of apparatus; and several Boards, *e.g.*, Liverpool, Birmingham, and London, have adopted the system of peripatetic demonstrators. Many educationists, it is fair to say, are strongly opposed to the method, but after all it is a matter of necessity and personality. No one would deny that a regular course in a specially designed room with a proper equipment of apparatus and a permanent teacher is preferable to the peripatetic, but where the largest number of pupils have to be reached with the least expenditure of money, the device is useful in a high degree. In the case of subjects where apparatus is required by the students, as Wood-

working and Cookery, the peripatetic method is impossible in its entirety. Hence the system of centres for special instruction in the branch, each centre serving a certain number of schools in the vicinity. A good example is found in the Wood-working centres set up by the Liverpool School Board. But the most complete plan of all is the establishment of Central Higher Grade Schools of the type of the Deansgate School at Manchester, the Central School at Sheffield, or the Central School at Leeds. These, which we may soon expect to see in every important town, approximate in organization and method to such institutions as the Merchant Venturers' at Bristol, Allan Glen's at Glasgow, and George Heriot's Hospital School in Edinburgh, which are not under School Board management. In these Central Schools are collected the pupils from the other schools who have shown greatest proficiency in learning and are most likely to remain under instruction until the age of fourteen at least. They are taken after passing the Fourth, or the Fifth, or in some cases (*e.g.* Birmingham Bridge Street School) even the Sixth Standard. After working up to the Seventh, they continue in what is dubbed in educational slang the Ex-VII. Standards. The courses of instruction at these schools are all of a technical, sometimes even of a technological, character. It is true that, although the attendances of Ex-Standard pupils count for earning the capitation grant, such pupils cannot be presented for grants in *specifics*; but they are entered instead for the examination of the Science and Art Department, South Kensington.

Even here a change came into operation last year. For 1891 the grants and passed candidates in Science were as follows:

		PUPILS.	GRANT FOR EACH PUPIL.
Honours	First Class ...	230	£ 4-0-0
	Second Class ...	1,088	" 2-0-0
Advanced	First Class ...	4,253	" 2-0-0
	Second Class ...	15,422	" 1-0-0
Elementary	First Class ...	21,367	" 2-0-0
	Second Class ...	66,160	" 1-0-0

After the Act placing funds at the disposal of Local Authorities for Technical Education became law, the Education department resolved to abolish the grant for a Second Class Elementary. The Circular says:—"The means recently placed at the disposal of Local Authorities for providing or aiding instruction seem to render it unnecessary for the Science and Art Department to continue to give direct aid for any elementary instruction in science. Such instruction can now be more effectually organized and maintained locally. It is very desirable that the payments for imparting it should, to some extent at least, not be made on the results of individual examinations. Local authorities, with

their local knowledge, and knowledge of local needs and requirements, are in a position to make capitation grants or payments for general efficiency in a manner which a central authority whose rules must be the same for all part of the country, cannot adopt and my Lords feel assured that they may count on having the support and assistance of these bodies in favouring the arrangements for placing instruction in science—the necessary foundation for any sound technical education—on a satisfactory footing.”—(Form 349/ S., 12 November, 1891). As the old system remained in force until the May Examination of 1892, we cannot say what course will be adopted by the Local Authorities. Some Councils of County Boroughs (*e. g.* Manchester) have been giving lump sums to the School Boards to be applied generally for Technical Instruction and this course will probably be followed for a year or two until the situation is cleared. To compensate for this loss however and to encourage advanced instruction, the payments for the Advanced Stage and Honours are to be considerably increased; thus £5 and £2, 10s. will be paid for a First or Second Class respectively in the Advanced Stage; and £8 and £4 in Honours. Practical Chemistry will be encouraged by payments of £3 for a First Class Elementary and of £6 and £3, 10s. in the Advanced Stage.

An alternative that may be adopted, and which has been adopted at the Deansgate (Manchester) School, is to constitute the science side an “Organised Science School” of the Science and Art Department. Such a School adopts a systematic course of Scientific Instruction laid down by the Department, and an attendance grant is paid for each student making a certain number of attendances and passing in one of the subjects of study laid down for his or her year. This grant, formerly 10s. a head in day schools and 5s. in evening schools, is by the circular just quoted raised to £1 and 10s. respectively. There are comparatively few of these schools—under thirty—but their number will probably now increase.

The supplement to the Day School is the Evening School. The first kind is the Continuation School, intended primarily for those who have left the Day School without going through all the Standards. In England a child may work ‘full time’ at fourteen without other qualification; at thirteen, if he has passed the educational standard fixed by the Secretary of State or the local authorities; at twelve he may work full time in a coalpit; at eleven, ‘half-time’ in a factory; and strangest of all, at ten he may work full time in any other place than a factory, workshops, mill, or coalpit, if he has passed the local educational standards. Regulations made by the Secretary of State for the Home Department, under the authority vested in him by the Factory Act, fix the standard of educational proficiency at not lower than Standard IV.

with an attendance since attaining the age of five years of at least 250 attendances a year, in not fewer than five years (not necessarily consecutive.) The rules of some local authorities fix the standard higher, but the ordinary resolution throughout England is Standard IV. for partial exemption (half-timers); and Standard V. for total exemption.* Thus the great bulk of the pupils leave school and go to work after reaching Standard V. For example, in Glasgow only 7.6 per cent. of the total scholars, in Sheffield only 6.4 per cent. are reading in Standard VI. and upwards. These percentages, being for towns, where special efforts have been made, are higher than for the country. Of the 4,824,683 pupils on the registers of inspected schools in England in 1891, only 184,592 or 3.8 per cent. were over thirteen years of age; and of these only 39,069, or less than one per cent. were over fourteen. To meet the case of the majority, thus compelled to exchange the day school for the shop or factory, the Evening Continuation Schools, are organised. They correspond to the German and Swiss *Fortbildung* Schools, attendance at which is in many parts of Germany and Switzerland compulsory. Evening Schools are favourably treated under the new Code. The fixed capitation grant is 4s. if the school has met not less than 45 nor more than 60 times since the last examination, and 6s. if the school has met not less than 61 times. The grant is paid on all pupils between the ages of 14 and 21 years, and also of such between 12 and 14 as have obtained the Certificate of total exemption, *i.e.*, generally, have passed Standard V. If however a pupil has not passed the Standards up to V., he must pass them regularly in the evening school before devoting his whole time to special studies. He may present himself in the three elementaries and not more than two special (*i.e.*, class or specific) subjects, and when he has passed Standard V., may present himself in not less than two or more than four specials. For every subject passed, the grant is 2s. for each student. The numbers attending these schools are rising rapidly. In 1891, the numbers qualified by attendance for examination were 62,617, of whom 27,547 were actually examined in the special subjects.

The Evening Classes for more advanced students, and to these the more technical kind of them belong, find it pay better to work for the examinations of South Kensington, the City and Guilds of London, the Society of Arts, or other organizations. They pave the way for the Professional School (*École Professionnelle*).

* We most heartily echo the wish of workers at home that an end may be put to this diversity of ages and standards. The *Schoolmaster* observes that this extraordinary result is now (1st January 1893) possible. “In many districts thousands of children will free themselves from compulsion by passing the total exemption standard at ten. After twelve months strict education, these children will enter the mill at eleven and come back to School as half-timers.”

THE SCHOOL AGE IN OLD ROME.

"As the boy grows up, he must be weaned from infantile toys and indulgences, and begin to learn in earnest." Although young Nero, as Suetonius tells us, when only nine years of age pronounced upon the rostra, a funeral oration in praise of his father, children in old Rome appear to have gone to the regular schools at about their seventh year. Quintilian says that "some were of the opinion that children under seven years ought not to be set to their letters, because that early age can neither conceive the meaning of methods nor stand the restraint of study." He goes on to urge that advantage nevertheless be taken of these early, impressionable years. Juvenal, remarking on the impossibility of overcoming the effects of demoralizing surroundings in the home of a child, says that when a child thus brought up has just turned seven, you may set a thousand of the gravest tutors on one side of him, and as many on the other, and he will never get over a longing for late suppers, etc.

But the most valuable testimony is that of Plautus, whose Demipho says: "I'm a lad seven years old. This very day I began to go to the school to learn my letters. I know three already." "What three?" Lysimachus asks. "A-m-o."

SCHOOL DEVICES.

To show the length of day and night at different latitudes at different periods of the year, and to explain the protracted day and night at the Poles.

Take a sheet of cardboard, and on it draw a circle of about twelve inches in diameter. On this mark the Axis, Poles, Equator, Tropical Circles, Arctic, and Antarctic Circles. Next, cut out of another card a semi-circular piece to cover exactly half of the above circle. Before cutting this semi-circular piece quite away, allow a very thin strip of about ten inches long to project from the centre of the straight edge of the semi-circle and at right angles to this edge. Fashion the end of this strip into a circular representation of the sun. Blacken the semi-circular card and color the sun yellow. We have now made of the second card a representation of a black umbrella, with a long handle and a yellow knob. Now fasten with a paper binder the semi-circle over the original circle on the first card, so that the semi-circle will easily rotate. Bring the sun vertically over the equator, and a representation of day and night at the equinox is obtained, the black disc representing, of

course, the darkened half of the globe. The class will easily see that all the parallels are bisected by the circle of illumination, and that day and night all over the earth are then of equal length.

Carry the sun north of the equator and vertically over the tropic of Cancer. The black disc immediately moves so as to uncover all the north frigid zone and completely cover the south frigid zone. In this position, of course, the north frigid zone has continuous day and the south frigid zone continuous night, whilst the only parallel bisected is the equator, and therefore day and night are of unequal lengths everywhere else, the day being longer than the night in the northern hemisphere, shorter than the night in the southern hemisphere.—*J. of Ed. (N. E.)*

AN EXTENSION OF THE METHOD OF DIVISORS.

1. Let $a_0 x^n + a_1 x^{n-1} + \dots + a_n$ be an expression in which the coefficients are all commensurable numbers. By a *factor* of such a given expression we shall mean any expression of a lower degree whose coefficients are commensurable numbers, and which divides the given expression exactly. The factors of an expression may be either linear, quadratic, or of higher degrees. By Newton's method of Divisors, the linear factors of any expression, if such exist, can be obtained. It will be shown here, that in a similar way the factors of any degree can be determined. The method to be given is very laborious; but it is perhaps worth knowing that we can, in a finite number of trials, resolve any expression into its component factors.

2. The expression $a_0 x^n + a_1 x^{n-1} + \dots + a_n$ can, by multiplying by the proper numerical quantity, be changed into one in which all the coefficients are integers whose G. C. M. is unity. Such an expression we shall, for brevity, call an expression in the *normal form*. For example, $x^3 - \frac{2}{3}x^2 + \frac{1}{3}x^2 - 2$ becomes, on multiplication by 6, changed into its normal form $6x^3 - 9x^2 + 2x^2 - 12$. We have then the following proposition.

3. The product of two expressions in the normal form is an expression in the normal form.

Proof. Let the two expressions in the normal form be

$$p_0 x^r + p_1 x^{r-1} + \dots + p_k x^{r-k} + \dots + p_r, \text{ and}$$

$$q_0 x^s + q_1 x^{s-1} + \dots + q_l x^{s-l} + \dots + q_s.$$

The coefficients in each of these expressions are by definition integers whose G. C. M. is unity. Hence, evidently, in their product the coefficients of the several powers of x are integers. We have to show that their G. C. M. is unity. If possible, suppose they have a common measure greater than unity; and let λ be a prime factor of that common measure. Let the first of the integers $p_0, p_1, \dots, p_r$ which is not divisible by λ be p_k ; and the first of the integers $q_0, q_1, \dots, q_s$, which is not divisible by λ , be q_l . Then in the product, the coefficient of x to the power of $(r-k+s-l)$ is

$$(p_k \cdot q_l + p_{k-1} \cdot q_{l+1} + p_{k+1} \cdot q_{l-1} + \&c.).$$

This, by supposition, is divisible by λ . But $p_{n-1}, q_{n-1}, \&c.$, are all divisible by λ . Hence it follows that $p_n \cdot q_n$ is divisible by λ ; which is absurd, since neither p_n nor q_n is divisible by λ , and λ is a prime. Hence the product of two expressions in the normal form must be an expression in the normal form.

Cor. 1. Conversely if $\psi(x)$ be an expression in the normal form, and $f(x)$ be a factor of $\psi(x)$ also in the normal form, the complementary factor being $\phi(x)$, then $\phi(x)$ must be an expression in the normal form. For if not, suppose that $\phi(x)$ is changed into its normal form on multiplying by the number μ . Then since $\psi(x) = f(x) \cdot \phi(x)$, it follows that the product of $f(x)$ and $\mu \cdot \phi(x)$ which are two expressions in the normal form, is equal to $\mu \cdot \psi(x)$ which is *not* in the normal form. This being absurd, we see that $\phi(x)$ must be an expression in the normal form.

Cor. 2. If $\psi(x) = a_0 x^n + a_1 x^{n-1} + \dots + a_n$, be a given expression in the normal form; and if $f(x) = p_0 x^r + p_1 x^{r-1} + \dots + p_r$ also in the normal form be a factor of $\psi(x)$, we see that p_0 must be a divisor of a_0 ; and p_r must be a divisor of a_n ; also the number $f(t)$, where t is any integer whatever, must be a divisor of the number $\psi(t)$. These results follow from the fact that the complementary factor is an expression in the normal form.

4. To determine the factors of any degree of a given expression

$$\psi(x) = a_0 x^n + a_1 x^{n-1} + \dots + a_n.$$

We shall consider the expression whose factors we seek as well as the factors themselves to be in their normal forms; and that the coefficients of their highest powers are taken positive. Also we shall denote by $\delta(n)$ any divisor, positive or negative, of the integer n .

(a) To find the linear factors of $\psi(x)$:—Let $p_0 x + p_1$ be a factor; then p_0 is a divisor of a_0 , and p_1 is a divisor of a_n . Hence p_0 and p_1 can be chosen in a finite number of ways. Having selected values of p_0 and p_1 , we have further to see by actual division, which may be performed synthetically, whether $p_0 x + p_1$ divides $\psi(x)$ exactly. The number of trials can be greatly reduced by the consideration that the number $(p_0 t + p_1)$ must be a divisor of the number $\psi(t)$, t being any integer; the most convenient values for t being $+1$, and -1 . The factors obtained in this way constitute all the linear factors of $\psi(x)$.

(b) To find the quadratic factors of $\psi(x)$:—Let $p_0 x^2 + p_1 x + p_2$ be a factor; then

$$p_0 = \delta(a_0)$$

$$p_2 = \delta(a_n)$$

$$p_0 + p_1 + p_2 = \delta\psi(1)$$

The right hand side of each of these equations has a definite number of values. Taking each set of values on the right hand side, and solving the above equations, we obtain a corresponding set of values for p_0, p_1, p_2 . If these values do not render $p_0 x^2 + p_1 x + p_2$ an expression in the normal form, they are to be rejected. If they do, we must further examine, by actual division, which may be performed synthetically, whether $p_0 x^2 +$

$p_1 x + p_2$ divides $\psi(x)$ exactly. The number of trials can be greatly reduced by the consideration that the number $(p_0 t^2 + p_1 t + p_2)$ is a divisor of the number $\psi(t)$, t being any integer. Exhausting all possible sets of values, we would obtain all the quadratic factors of $\psi(x)$.

(c) To determine the factors, if any, of the r th degree of $\psi(x)$: Let $p_0 x^r + p_1 x^{r-1} + \dots + p_r$ be a factor; then if $t_1, t_2, \dots, t_{r+1}$, be any $(r+1)$ different integers, we have $(r+1)$ equations of the form

$p_0 t^r + p_1 t^{r-1} + \dots + p_r = \delta \cdot \psi(t)$; where t takes all suffixes from 1 to $r+1$. The right hand sides of these equations have each but a definite number of values.

Taking any set of values, and solving the above system of linear equations, we obtain a corresponding set of values for $p_0, p_1, \dots, p_r$. We have to reject all those sets of values but such as make $p_0 x^r + p_1 x^{r-1} + \dots + p_r$ an expression in the normal form; and with the remaining sets of values we have to see, by actual division, whether $p_0 x^r + p_1 x^{r-1} + \dots + p_r$ divides $\psi(x)$ exactly. If $\psi(x)$ has really any factor of the r th degree, it must come out in this process; and if the process yields no factors we are sure that there is none of r th degree.

5. To resolve a given expression $\psi(x)$ into its component irresolvable factors; we have to remove from $\psi(x)$ its linear factors; then from the remaining expression we must remove the quadratic factors; then from the remaining, the cubic, and so on. If $\psi(x)$ which is of the n th degree is found to have no factor of a degree not greater than $\frac{n}{2}$, then $\psi(x)$ is irresolvable. We shall conclude with the following example.

To resolve $4x^5 - 4x^4 + 7x^3 + 3x^2 - 13x - 6$.

It will be seen that this has only one linear factor namely $(2x+1)$; removing this, the remaining expression is $\psi(x) = 2x^4 - 3x^3 + 5x^2 - x - 6$; this then has no linear factors. If it has also no quadratic factors, it is irresolvable. Let $p_0 x^2 + p_1 x + p_2$ be a quadratic factor. We have $\psi(1) = -3$; $\psi(-1) = 5$; $\psi(2) = 20$.

$$\text{Now } p_0 = \delta(2) = 1, 2$$

$$p_2 = \delta(6) = 6, 3, 2, 1, -1, -2, -3, -6.$$

$$p_0 + p_1 + p_2 = \delta\psi(1) = 3, 1, -1, -3.$$

Taking first $p_0 = 1$ and $p_2 = 6$, we find

$$p_1 = -4, -6, -8, -10.$$

The consideration that $p_0 - p_1 + p_2$ is a divisor of $\psi(-1)$ or 5 shows that none of these sets of values is possible.

Take next, $p_0 = 1$, and $p_2 = 3$; and we have

$$p_1 = -1, -3, -5, -7.$$

By the same consideration all these sets of values are to be rejected except $p_0 = 1, p_1 = -1$, and $p_2 = 3$. This set of values also renders $p_0 x^2 + p_1 x + p_2$ a divisor of $\psi(2)$ or 20. And we find by actual division that $(x^2 - x + 3)$ divides $\psi(x)$ exactly, the quotient or complementary factor being $(2x^2 - x - 2)$. Hence $\psi(x) = (x^2 - x + 3)(2x^2 - x - 2)$; and the factors of the original expression are therefore $(2x+1)$, $(x^2 - x + 3)$, and $(2x^2 - x - 2)$.

ENGLISH SOUNDS.

A pretty deer is dear to me,
 A hare with downy hair;
 I love a hart with all my heart,
 But barely bear a bear.
 'Tis plain that no one takes a plane
 To shave a pair of pears;
 A rake, though, often takes a rake
 To tear away the tares.
 All rays raise thyme, time razes all;
 And through the whole, hole wears.
 A writ, in writing "right" may write
 It "wright", and still be wrong—
 For "wright" and "rite" are neither "right".
 And don't to write belong.
 Beer often brings a bier to man,
 Coughing a coffin brings,
 And too much ale will make us ail,
 As well as other things.
 A quail don't quail before a storm,
 A bough will bow before it;
 We cannot rein the rain at all,
 No earthly powers reign o'er it.
 The dyer dyes a while, then dies,
 To dye he's always trying,
 Until upon his dying bed
 He thinks no more of dyeing.
 A son of Mars mars many a sun;
 All days must have their days,
 And every knight must pray each night
 To Him who weighs his ways.
 'Tis meet that man should mete out meat
 To feed misfortune's son;
 The fair should fare on love alone,
 Else one cannot be won.
 The springs spring forth in spring, and shoots
 Shoot forward one and all,
 Though summer kills the flowers, it leaves
 The leaves to fall in fall.
 I would a story here commence,
 But you must find it stale,
 So let's suppose that we have reached
 The tail end of our tale.

PRIZE COMPETITION.

We propose to start a Prize Competition for our readers, upon the lines of the Translation Competitions in the (*London*) *Journal of Education*. We should like to offer the Prize for Translation, but the multiplicity of Vernaculars is a practical obstacle. We hope, however, should our present contests prove popular, to give extra prizes from time to time for Translation from or into Tamil, Telugu, Marathi, Urdu, &c.

This month a prize will be awarded for *Paraphrase*. Paraphrasing is far from easy to do well, it requires not only a thorough acquaintance with language structure, but great judgment and taste. It is constantly demanded from students at Examinations, and is taught daily by the teacher. Such a competition is therefore likely to be useful and we hope a large number will send in attempts. The successful paraphrase will be published in the *Journal*, along with any others deemed worthy. The piece selected for the first competition is a comparatively easy one. Mr. M. T. Quinn, M.A., has kindly consented to act as Judge.

RULES.

1. All Paraphrases must be posted, prepaid, addressed to "The Editor, Indian Journal of Education, Pachaiyappa's College, Madras," so as to reach him not later than the last day of the month in which the *Journal* is published. [*E. g.*, for the present Competition, communications must reach us not later than 31st March.] All envelopes must have the word *Paraphrase* written clearly on the front.
2. All Paraphrases must be written on paper of foolscap size and on one side of the paper only.
3. Competitors may adopt initials or a *nom-de-plume*; this must be written clearly at the top of the first page. Immediately underneath must be written the real name and address of the competitor. The latter will be published only in the event of his gaining the prize or failing to select a *nom-de-plume* or initials.
4. Paraphrases considered worthy of honourable mention will be arranged in two classes, I Class and II Class.
5. The Prize will consist of Books of the value of Rs. 10 to be selected by the winner. If two competitors be equal, the Prize will be divided. The Editor reserves the right to withhold the prize in the event of no paper reaching a sufficiently high standard of merit. He may also award an extra prize if circumstances demand it.

COMPETITION I.—PARAPHRASE.

She was a Phantom of delight,
 When first she gleamed upon my sight;
 A lovely Apparition, sent
 To be a moment's ornament;
 Her eyes as stars of Twilight fair;
 Like Twilight's, too, her dusky hair;
 But all things else about her drawn
 From May-time and the cheerful Dawn;
 A dancing shape, an Image gay,
 To haunt, to startle, and way-lay.

I saw her upon nearer view,
 A Spirit, yet a Woman too!
 Her household motions light and free,
 And steps of virgin-liberty;
 A countenance in which did meet
 Sweet records, promises as sweet;
 A Creature not too bright or good
 For human nature's daily food;
 For transient sorrows, simple wiles,
 Praise, blame, love, kisses, tears and smiles.

And now I see with eye serene
 The very pulse of the machine;
 A Being breathing thoughtful breath,
 A Traveller between life and death;
 The reason firm, the temperate will,
 Endurance, foresight, strength, and skill;
 A perfect Woman, nobly planned,
 To warn, to comfort, and command;
 And yet a spirit still, and bright
 With something of Angelic light.

NEWS AND NOTES.

INDIAN.

Rai Bahadur P. Ranganadam^oMudaliyar, M.A., has been appointed Secretary of the Madras School-book and Vernacular Literature Society, in place of Dr. Duncan, who succeeds Mr. Grigg as President.

The following Board has been appointed to conduct the Examination for admission to the Madras Provincial Civil Service. The Director

of Public Instruction, *President*, Mr. George Stuart, M.A., Presidency College, *Secretary*, and the Rev. William Miller, L.L.D., C.I.E., Madras Christian College, Mr. W. S. Meyer, Acting Secretary Board of Revenue, and Mr. John Adam, Pachaiyappa's College, *Members*.

There having been much confusion of interpretation and practice, in Madras, of the Rules for leaving certificates in the case of colleges, it may be useful to state the ruling of the Director of Public Instruction on the subject. Rule 15 need not be followed in the case of applicants who have just passed the Matriculation, F.A., or B.A. Examination, and who seek admission at the beginning of the calendar year, immediately after or soon after the results of the Examination have been published. The fact of their having been admitted to the University Examination may now be accepted as evidence that the applicants have satisfied in all respects the head of the school or college they attended up to the date of the examination. If, however, several months have elapsed since the applicant passed a University or other public examination, the applicant should be required either to furnish evidence that he has not attended any school or college during the interval, or if he has attended a school or college, to produce a leaving certificate. In all other cases the rule must be strictly applied and special attention should be paid to the Notification printed on page 192 of this issue.

The Annual Report of the Syndicate of the Madras University is not due, under the new regulations, until August. We have therefore anticipated it by compiling the following figures from the pass and failure lists.

In the Matriculation Examination, out of 3,402 candidates, 520 passed and the examination of 81 was disallowed for want of term certificates. There were thus 2,801 failures. The number of failures in each subject was as follows.

English	...	...	...	2,100
Second Language	...	...	...	488
Mathematics	...	...	...	1,500
Physics and Chemistry	...	...	...	1,448
History and Geography	...	...	...	1,711
Failed in one Subject only	...	...	...	699
Failed in all five Subjects	...	...	...	251

In the First Examination in Arts there were 1,239 failures in all. Of these there failed in

English	...	...	...	643
Second Language	...	...	...	462
Mathematics	...	...	...	749
Physiology (or Physiography)	...	...	...	515
History	...	...	...	376
Total Marks	...	...	...	46
In a single subject only	...	...	...	146
In five subjects	...	...	...	89

The only thing noticeable in these figures is the unprecedentedly large number of failures in 'Second Language'. Twenty-three per cent. of rejections in that Branch heralds a new era in vernacular Education.

For the Science Branches of the B.A. Degree the following are the results.

Branch	Subject	Entered	Examined	Passed	Percentage of passes to Examinees.
I.	Mathematics	72	64	29	45.3
II A.	Physics	155	138	61	45
II B.	Chemistry	38	36	16	44.4
III B.	Physiology	2	2	1	50
III C.	Zoology	39	35	24	68.6
IV.	Mental and Moral Sc.	171	157	93	59.2
V.	History & Pol. Econ.	205	163	88	54
Total		682	595	312	52.4

The large number of absentees, especially in History, was due to a ruling that non-appearance would not be reckoned as failure. Students who absented themselves can again appear at the next or any subsequent examination without reading another year in a College, as the failed candidates must now do. Thus, in the case of the absentees, prudence was deemed the better part of valour. The English Lists have been published at the moment of going to press. They show the extraordinary and abnormal result of 513 passes out of 677 entries, or 76 per cent. No fewer than 22 are placed in the First Class.

For the L. T. Degree out of 43 who entered 30 passed the written portion of the Examination. For the practical test, 37 entered, composed of candidates who have passed the written Examination in this and previous years. Of these 13 were successful:

Mr. Waman Abaji Modak, who for the last ten years has been Principal of Elphinstone High School, Bombay, retired from the service on pension on the last day of December. The *Record* is, for obvious reasons, precluded from any attempt to estimate the strong or weak points in Mr. Modak's administration, but there can be no harm in our saying what the whole department and the public know, viz., that he retires with the respect and esteem of all who have ever been brought into contact with him for his high personal character and the ability and dignity with which he always conducted the duties of his important office. Everyone, we are sure, will cordially wish Mr. Modak many years of good health and strength to devote himself to the advancement of those objects of social and other improvement to which he has for many years unselfishly, and with much public advantage, given his spare time.—*Bombay Educational Record*.

GENERAL.

The following Circular indicates a completely new departure on the part of the English Education Department; and looks as if Mr. Acland had been reading the Madras Educational Rules. The Circular has been issued to Her Majesty's Inspectors of Schools:—

"My lords are desirous of obtaining a fuller and more detailed statement than is given in the annual reports of her Majesty's Inspectors, with reference to the condition, as regards buildings and apparatus, of each of the schools in England and Wales. I am, therefore, to request that you will, at each of your annual visits to schools during the year beginning Feb. 1, 1893, complete and file with Form 10 one of the accompanying forms. It is, of course, not to be understood that, in every case where the school is to some extent defective in one or more of the points mentioned in the form, you are required to press for an immediate alteration. In that matter you will, as heretofore, use your discretion. At the same time any serious defect in the convenience of the school for teaching purposes or in its sanitation should be brought under the notice, both of the managers and of the department, with a view to its immediate removal. The object aimed at by the form is two-fold; first, the answers to the questions are intended to show, with the view of enabling the department within a reasonable limit of time

scholars, £22,000; higher institutions, £3,800; art teaching, £10,000; science teaching, £6,000; technology and manual training, £5,000; scholarships, £8,000; household economy, £3,200; commercial subjects, £2,000; and technical museums, £4,000. These grants are proposed to be made subject to the acceptance of certain conditions by the institutions aided, but into these and other particulars we have no space to enter.

Some interesting statistics have recently been published concerning the German Universities. The number of dissertations for the doctor's degree issued under the auspices of the faculties during the five years ending 1890, were 9,082. Medicine comes first with 4,585 dissertations, while Theology has only 48. The Medical faculty of Würzburg seems most popular and heads the list with 881; Berlin comes second with 707, and Munich third with 566; Leipzig is last with 3. On the other hand in Philosophy Leipzig stands at the head, 662 degrees having been granted against 411 at Berlin and 88 at Würzburg.

Another set of interesting statistics gives the number of foreigners enrolled among the students. During the last semester 28,053 students were enrolled at the 21 Universities, and of these 1,862 were foreigners. More than half of them, 983, were studying Philosophy and Science; 465 were studying Medicine, 246 Law, and 168 Theology. The largest number, 568, were at Berlin.

The Prussian Universities are 9 in number and are now more strongly manned than ever. They command the service of 559 Professors and 384 Privat-docents. The total number of teachers is 1,221. The average salary of a Professor is equal to about Rs. 370 per mensem, the least being about Rs. 100. The Professor of Law at Göttingen, the celebrated Von Ihering, who died a few months ago, received the largest salary, which was equal to Rs. 850 per mensem.

As a proof of the strict discipline exercised in German Universities with reference to the conduct of matriculated students, *The Educational Times* mentions the fact that during the present academical year the names of not less than thirty students were put on the *Black Board*, with the notification that they have been removed from the University registers, because the young students had absented themselves from the town without the requisite permission from the authorities of the University.

89

Helena, Montana, has a school-house that cost \$140,000, and is built of gray granite. There are twelve class-rooms, elegant halls, with tiled wainscoting, and an industrial training department in the basement, equipped with all modern improvements. Duluth, Minnesota, with a population of only 30,000, has put up one that cost \$450,000 and has forty-five class-rooms. Fancy Conjeeveram or Nellore spending fifteen lakhs upon a school house.

Metalla King, writing to the *New York School Journal*, offers some 'pedagogical truisms' that should bring comfort to a discontented school teacher. He says, "First you positively *must not* be on your feet all day. Resolve to control your class from your desk. It may be wise to stand occasionally or to change place occasionally, but you should sit the greater part of the time when not teaching from the board. Much movement on the part of the teacher tends to distract the attention of the pupil. Furthermore no one can do mental work when physically exhausted. Have the right spirit toward them, care for your own health for their sakes, and with your strong will-power, you cannot fail to succeed."

The accounts which reach *The Schoolmaster* of the condition of the teacher in Spain seem almost incredible. It gives a few extracts from a recent article in *La Educación Moderna*, an educational periodical published at Colima (Mexico), deploring the state of things in "the mother country", as revealed by the last advices received. The words italicised are so printed in the original. "In this unfortunate country the school-master is seen cadaverous, ragged, miserable, imploring, with feeling exclamations, his daily bread, as has happened recently with the school-master of the village of Benagalbón, who, suffering from hunger, presents himself in the most frequented streets of Malaga, with a large placard in his hand, on which is inscribed:—*The master of primary education of Benegalbón, to whom the Government does not pay his arrears of salary, implores public charity.*" "In what nation do these things happen? In Spain? In the once proud sovereign of the world, in the former mistress and ancient proprietress of our free America? . . . But, this is not all. *The masters of primary instruction of the province of Murcia have organised a new kind of entertainment for the approaching fair and festivals of their capital. They actually intend to set up in the midst of the fair a begging table (mesa petitoria).* Only imagine schoolmasters asking alms because they had not been paid their salaries for twenty-five months!" "The masters of the village of Lorca, says *El Liberal*, have decided to visit the city of Murcia during the festival days, not to take part in the

public rejoicings, but to implore public charity, because they have been kept twenty-five months without their salaries."

It is always very pleasant to hear what one says on himself and his labours. The editor of the *New York School Journal*, to a humorous review of his work in 1892, adds a note of his varied career in the educational field for over five and twenty years after graduating at the Albany Normal school under the late lamented David P. Page, 'the wonderful teacher of New England'. Deeply impressed with the belief that the normal school was the saviour of education, he devoted himself to the work of spreading a knowledge of all sorts of school-work, and of different successful methods of teaching. There are thousands of young men and women in all parts of the country who, unable to attend a normal school, are found to welcome that instruction in the form of an educational journal which, by unfolding in it a right plan of teaching, proves a veritable normal school for the entire country. The writer finds that the work last year has been very successful, as can be judged by many teachers in distant parts declaring that they had been led to the light. May he realise his hope that in succeeding years his work will prove of a still higher value to the teacher-readers of this well-conducted periodical.

LITERARY.

Super-sede is the only word ending in *se*. *Pro-Suc-ceed* are the only words in *ceed*; all others have *cede*.

It is mentioned by *The Bookman* that in one house alone the book-sellers of the United States have machinery continually working, which is capable of printing, folding, stitching, covering, and cutting the edges of no less than 20,000 sets of a nine-volume edition of Dumas' works in one day.

Among new books relating to India we note, *The Rise of the British Dominion in India* by Sir A. Lyall (John Murray, 4s. 6d.); *Life of Muhammad*, translated by the late E. Rehatsek from the *Rauzal-as-Safa* (R. A. Soc.); *Buddhaghosuppatti*, edited and translated by James Gray (Luzac, 6s.)

Lord Playfair in a recent speech gave a very practical interpretation of the saying of Epictetus, that though sheep eat grass, it is not grass but wool that grows on their backs. The grass is abstract science and the humanities, and the wool is the utilities into which these may be converted.

The Bookman states that the author of the anonymous 'Sketches of Indian Life' which have been appearing in *MacMillan*, and have been attributed by many to Rudyard Kipling, is Mr. E. A. Steel. Mr. Steel resides at Turriff, in Aberdeenshire. He has written some stories understood to be of great merit, for the new illustrated weekly, the *Sketch*; and commences an Anglo-Indian novel in *MacMillan* for February.

Mr Rudyard Kipling's recently published story, 'My Lord the Elephant', was issued simultaneously in England, America, Australia, Canada, India, the Straits Settlements, on the continent, in the English Magazine, in the *tauchnitz Magazine*, and a German Periodical. The same author's 'Barrack-Room Ballads' is now in the seventeenth thousand, and still continues selling as rapidly as ever. He has also written an article entitled 'Looking back at Boyhood' for the American Youth's Companion.

The Report of the Madras Literary Society and Auxiliary of the Royal Asiatic Society, submitted to the Annual Meeting on the 28th February, is not very encouraging reading. True, the numbers of members and subscribers show signs of recovering from the blow dealt a few years back, when the Madras Club permitted books to be borrowed from the Club Buildings by members. The members have increased in number from 89 to 103 and the subscribers from 93 to 113. The amount expended in the purchase of new books appears small when compared with the receipts, but the year had to bear the heavy expenditure connected with the publication of the new Catalogue, which was sadly wanted and is a most admirable publication. Few are aware of the vast amount of voluntary labour that has been expended by a few devoted members not only upon this Catalogue but upon the library as a whole, in making its treasures better known and more available, and having valuable old works saved from decay. As a storehouse of literature the Library stands in Madras second only to that at the Museum.

It is, however, to be deeply regretted that the society is, in the words of its committee, "becoming a mere circulating library". The word 'Literary' can no longer justify its place in the title, still less can the society rightfully claim to be any auxiliary of the Royal Asiatic Society. The famous Journal, after a fitful recrudescence, again appears to be dead—and in all the intervening years the Editorial Secretary has not amassed enough matter to fill a single number. This is much to be lamented. It should, however, be remembered that circumstances have greatly altered since the palmy days of the Journal. Those who have

anything really new desire a wider audience and prompter publication than the Journal in its recent lethargic condition can afford; and the immense number of journals and proceedings, coupled with the speedier communication with the headquarters of literature and science, tend to crush provincial ventures. One thing is certain; if the Journal is to be restored to vitality, something more is required than a plaintive, almost querulous, complaint to members in the Annual Report.

* * *

SIR MOUNT-STUART E. GRANT DUFF, when opening an Institute of Mercantile Education at Stratham Common recently, used significant language in reference to proposals for the organization of secondary education. At the outset he observed that, had the Institute just opened been an ordinary school, he would not have seen his way to be present. We had quite enough of schools of the ordinary sort. What was necessary at present, for the good of secondary education, was intelligent organization of existing forces. We were likely to see greater changes in secondary education than was generally expected. A leading member of the party in power had told him that he hoped to see the whole of the secondary education made gratuitous. In an age like this, when the most unpopular of all the commandments was the eighth, he thought this plan for transferring money from the pockets of those who had it to the pockets of those who had it not, would have a great many important supporters. This school had for its object the instruction rather than the education of the boys, and in that limited object he believed they would succeed. If our youths did not make themselves proficient in commercial geography and modern languages they would be cut out by young Germans.

SCIENTIFIC.

From the theoretical point of view the electrolytic decomposition of common salt is the most perfect method of preparing chlorine and soda, but the difficulties to be overcome in working the process on a manufacturing scale are so great, that, although inventors have been giving the subject their attention for years past, the success which, until quite recently, has attended their efforts has been small. But notwithstanding the very confident predictions of certain authorities as to the utter impossibility of an electrolytic soda process paying, if the facts and figures adduced by Messrs. Cross and Bevan are to be relied upon, the process is undoubtedly destined to play a very important part in the future development of the alkali industry. The chief difficulties have, hitherto, been (1) the devising of a diaphragm of such low resistance as to allow the electrolysis to proceed with a reasonably low elec-

A1

tro-motive force, and, at the same time, effectually prevent the recombination of the products of the electrolysis; (2) the construction of an anode which will stand wear and tear. In a paper read a short time ago before the London Section of the Society of Chemical Industry it is claimed that these obstacles have now, to a large extent, been overcome. The authors describe two of the processes, the Greenwood and the Le Sueur, and state that the latter is now in successful operation at Runcorn Falls, U.S.A., on a scale of three tons of bleaching powder per day, while arrangements are being made to work the former method in another locality. Figures are also given to prove that the cost of production leaves a large margin of profit.

* * *

It is not pretended that in the above processes, or in any of the electrolytic processes which have been worked out, absolute perfection has been attained. But immense advance has been made, and all that now remains to be done are matters of detail, such, for instance, as the utilization of the liberated hydrogen. It seems, therefore, not unlikely that, at no very distant date, the time-honored process of LeBlanc, if not also Solway's process, which has to so large an extent replaced it, will be things of the past.

* * *

It is not at all probable that bleaching-powder will be superseded in many of its applications, but the introduction of another bleaching agent, of course 'made in Germany', is of interest. The substance referred to is the peroxide of sodium, first described by Gay-Lussac and Thénard in 1810, and hitherto known only as a rare product of the laboratory, but which has now been put on the continental market at a price of 5 francs per kilo. The patent is not yet published and therefore the mode of preparation is unknown. Its formula shows that it contains over 20 per cent. of oxygen available for bleaching purposes, whereas barium dioxide contains only 8 per cent. and hydrogen peroxide (12 vols.) only 1.5 per cent. It is decomposed by dilute acids and may therefore be employed instead of the barium compound to prepare a solution of hydrogen peroxide. On account of its strongly alkaline reaction it cannot be used directly in bleaching animal fibres, such as wool and silk; it is therefore employed in conjunction with magnesium sulphate, the metal of which is peroxidised.

* * *

Mrs. Percy Frankland, the accomplished wife of the Professor of Chemistry at the University College, Dundee, writes in *Nature* concerning Bacilli in Butter. Mrs. Frankland has made more than one contribution to the subject of bacteriology, and takes quite an affectionate

interest in the humble, though not always harmless, microbe; but the object of the present communication is not to make known any new discovery of her own, but to draw attention to the work of certain other observers in the same field who have been investigating the number and nature of the micro-organisms found in butter. It has been well known for long past that milk affords a particularly suitable medium for the growth and multiplication of most micro-organisms, and is, consequently, not infrequently a vehicle for the propagation of disease; but, hitherto, comparatively little has been known of the microbial condition of butter. That organisms, some of which are pathogenic in their nature, can live and propagate themselves in the medium has, it seems, been demonstrated by more than one observer, but it was not suspected that harmless varieties of these creatures are ordinarily present in butter in the immense numbers in which they have been shown to occur. Their taste for this useful article of diet is of the most pronounced character, as many as 47,250,000 of them having been detected in one gram of the material. This was on the outside of the pat, but inside there were not quite so many. Taking the average of a number of examinations, it was estimated that the interior of a lump of butter contains from 10 to 20 million of bacteria in a single gram. As among their superiors, fresh butter is generally preferred to the salted article, but this is not invariably the case. There is one particular microbe whose tastes are in the opposite direction. It likes its butter salted, and if its feelings are consulted, grows and multiplies to the exclusion of nearly every other kind. But in common with other butter-loving bacteria it despises all substitutes. Samples of artificial butter were invariably found to contain less live stock of this description than the genuine product of the cow.

To those unacquainted with bacteria and their ways, the facts and figures quoted by Mrs. Frankland are somewhat startling and even a little alarming, and the sensation they have created has extended even to circles ordinarily impervious to impressions of this description. But while these very painful revelations are received by the serious portion of the public press with more or less horror and amazement, not untinged with incredulity, *Punch*, under the heading "Is Science played out?" turns them into ridicule in the following lines, which are reproduced with apologies:—

["In a grain of butter you have 47,250,000 microbes. When you eat a slice of bread-and-butter, you therefore must swallow as many microbes as there are people in Europe."—"Science Notes" in *Daily Chronicle*].

CHARLOTTE, eating bread-and-butter,
Read this Note with horror utter,
And (assisted by the cutter)
Went on eating bread-and-butter!
Man will say—with due apology
To alarmed Bacteriology—
Spite of menacing bacilli,
Man *must* eat, friend, willy-nilly!
And where *shall* he find due foison
If e'en bread-and-butter's poison?
Science told our amorous Misses
Death may be conveyed in *kisses*;
But it did not keep the nation
From promiscuous osculation.
Now it warneth the "Young Person"
(Whom GRANT ALLEN voids his curse on)
"Bread-and-butter Misses" even
In *their* food may find death's leaven!
Never mind how this is made out!
Science—as a Bogey's—played out.
Spite all warnings it may utter,
Women *will* have Bread-and-Butter!

From bacteria to bactericides is an easy transition. Hitherto it has been thought that the most powerful antiseptic bodies belonged to the hydroxyl compounds of the aromatic series of hydrocarbons and to the metallic salts. Quite unexpectedly, however, it has been found that formaldehyde is a very powerful antiseptic, superior even to corrosive sublimate. Acetaldehyde possesses no such property, and, until the contrary was proved by experiment, it was concluded that its lower homologue resembled it in this respect. It is found that the addition of 1-50,000 to meat extract has a decided preservative action, while with 1-25,000 no change could be noticed in the extract after the lapse of four days. Bichloride of mercury in these proportions has no effect, the extract showing change in 24 hours. With 1-12,000 the extract is kept good for several weeks, while change takes place in five days when using an equal weight of the mercury salt. Several kinds of bacilli are destroyed by a solution of 1-25,000, among which may be mentioned those of the salivary. Its use is recommended in the preservation of meat and other fermentable substances. The vapour of the aldehyde was found to stop all decomposition, keeping meat fresh for months, while analyses of the meat juices

and microscopical examination of the tissues showed that no alteration had taken place from the action of the aldehyde.

* *

There is a well authenticated case illustrating the danger attendant on the introduction of poetry into therapeutics, and one would imagine that the disastrous consequences which are said to have resulted from simultaneously following two such dissimilar pursuits would be a warning to all imitators. But with a fine disregard for the probable consequences of his literary activity, an apothecary-poet has composed and published a metrical version of the British Pharmacopœia, which in rhymes as varied as the preparations they describe, instruct the young pharmacist in the compounding of pills and plasters, liniments and ointments, and every other Galenical abomination. The following are specimens of the verses in which all this knowledge is enshrined:—

EXTRACT STRAMONII.

Percolate with ether—the percolate reject;

Percolate with spirit proof—evaporate, collect.

LIN. ACONITE. LIN. BELLADON.

Pulv. aconite or belladon., 20 ounces weight,

With a pint of spirit rectified for three days macerate;

Then percolate with spirit till you've thirty ounces run,

Dissolve an ounce of camphor, and the liniment is done.

SYRUP FERRI SUBCHLOR.

$2\text{HCl} + \text{H}_2\text{O} + \text{Fe}$ (gently heat),

Add acid cit., and filter, add sugar, and complete.

VIN. ALOES.

Aloes socot., cardamoms with ginger, you consign,

To agitate and macerate a week with sherry wine.

W. H. W.

CORRESPONDENCE.

The following letter from Mr. C. A. Paterson refers to a remark in an article by Mr. S. Vydiyanatha Iyer in our last issue. We have pleasure in inserting it, for the "Origins of History" must be kept sacred.—*Ed. I. J. E.*

SIR,—I write to point out an error which you make when you say on p. 89 of your issue for February that it was reserved to the Trustees of Pachaiyappa's Charities to first open a Phonography Class in 1884; for in 1880 and 1881 I taught a Phonography Class in the Church of Scotland Mission School, Vellore. I reported this to the Director at the time; and the time I spent in teaching Phonography was considered in calculating the number of hours that I required to devote to secular teaching in

order to qualify for a salary grant-in-aid. Some of the persons that I taught in 1881 now hold good situations as shorthand clerks, and one teaches phonography privately. The last mentioned occasionally corresponds with me in shorthand writing.

I believe, though I am not certain, that Mr. Cooper of the Christian College, taught shorthand in Madras even before I did.

Again in 1882 and 1883 I taught Phonography regularly to a class in the General Assembly's Institution, Bombay, and some of the pupils I then taught became very expert writers and now hold good situations in Bombay.

Thus shorthand was taught in the Presidencies, both of Madras and Bombay, before the Trustees of Pachaiyappa's Charities resolved to open a class.

In 1884 I taught a class in Vellore, and in 1885 and 1886 I taught a class in the Church of Scotland Mission College, Madras. At the first examination in shorthand held in this Presidency several of my pupils obtained certificates, as will be seen by a reference to the Gazette. One of my pupils obtained very much higher marks than the candidate that stood second.

I have not taught shorthand in India since 1886 as I considered the present needs sufficiently provided for by Pachaiyappa's Trustees and as our Mission has not resolved to teach for the Upper Secondary Examination. I quite endorse all that you say about the importance of shorthand to students, and when a fitting opportunity comes I will once more introduce it into the Church of Scotland Mission College.

But it is as erroneous to ascribe to Pachaiyappa's Trustees the honor of being the first to open a Phonography Class, as it would be to ascribe to the Teachers' College, the honor of being the first to train gymnastic instructors, on the ground that the Field Games Association no longer trains instructors.

CHURCH OF SCOTLAND MISSION COLLEGE,
MADRAS, 22nd February, 1893.

C. A. PATERSON.

REVIEW OF EDUCATIONAL REVIEWS.

[We regret several of the Reviews had not come to hand at time of going to Press.—*Ed. I. J. E.*]

INDIAN.

The Indian Magazine and Review (London, February). 1. Continues Miss Gonino's account of the Caaba and Mosque at Mecca. 2. A reprint of Miss Carr's paper on 'The Education and Training of Women Teachers.' 3. 'The Centenary of Dean Ramsay' by Miss Plampre calls attention to and illustrates the great changes that have taken place within the last

hundred years in the drinking habits of 'the classes', and in the relation between masters and servants. There is another letter on the Princess D'Eldir, by 'The Idle Enquirer' who now reveals himself as Lord Hophouse. 4. 'Gambling in the Punjab' by Hakim Aminuddin is an article prompted by listening to a sermon by the Rev. H. P. Stokes, in St. Paul's, Cambridge. It points out that in the Punjab on the Devali-day gambling is regarded as a religious duty, and the souls of those who will not gamble will enter the bodies of donkeys, and their rebirth will be that of an ass. The writer also describes the joareās, or professional gamblers; but the most striking portion of the article is that drawing attention to the spread of betting on horse-races, which the Hakim asserts is proceeding at a rapid pace.

The Madras Christian College Magazine (Madras, February) 1. The 'Resurrection of Christ and its significance' by the Rev. Alex. Miller. 2. 'The Santals', I., begins what promises to be an interesting account of these primitive people. The present instalment is mainly occupied by an account of their theory of creation, which in a less expanded form is familiar to us in Hunter's *Orissa*. 3. 'The Káveri Mahátmya and the Kodagas' by H. Naraina Rao, is one of a type of articles which are often to be met with and always acceptable in the pages of this Magazine. Though we may not always agree in their conclusions, we must always rejoice to find natives of the country interesting themselves in historical work. The writer returns to the point mooted by him some time ago, that the five chapters of the *Mahátmya* dealing with Coorg are a late interpolation by an obscure Talekáveri priest; and even attempts to fix their exact date at 1850. The writer discusses fully the question of the former prevalence of the practice of Polyandry in Coorg; and upon this and other grounds claims to have established a close relationship between the Nairs and the Coorgs. In 'College Notes' Dr. Miller describes the new buildings and other improvements that have been made in connection with the College. Referring to the Matriculation Examination he says, "I did not indeed expect that the failure would have been so unprecedented as has proved to be the case. I understand that there are not only many schools but whole districts containing several schools from which not a solitary candidate has passed. I am not able to say that I approve of what has taken place. I think it would have been wiser to be a little prudent in the first year of so great a change. A good driver drives gently when he has to turn a very sharp corner. At the same time the examiners are within their rights in applying the new rules with such severity as they have manifestly done. Those who may not altogether commend them have yet no right to call them to account or make very loud complaint. The

general slaughter—to use the popular phrase—will have its hardships and inconveniences, but the harm done by it will be only temporary."

ENGLISH.

The Educational Times, like the other Educational Journals, devotes much of its space to reports of the meetings and conferences so multitudinous in January. Not only so, but most of the editorial notes are given up to a running commentary on the proceedings, which are for the most part without interest to this country.

The Journal of Education is not quite so confessional. Mr. Findlay continues his "Notes on the training of Secondary Teachers in Germany". The chief merit of this, according to the writer, is that each large Gymnasium trains its own teachers, the headmaster and staff having to devote a portion of their time to this duty. "This enables the headmaster to give the special impress of his own work and of his own type of school, on the young men who are preparing to take a place in his staff. No doubt this impress may be too powerful and may lead to narrowness of view, if nothing is supplied to counteract it; but those who are responsible for the machinery of a large school know how important it is that the best skill and influence of the place should be brought within the reach of those about to put their hand to the work." In "What becomes of the Pupil Teachers who pass the preliminary examination?" a very miserable and we hope overdrawn account is given of the effect of the pressure of preparation upon girls not, as a rule, of a very high intellectual standard. "A great number of them," the writer asserts, "are swelling the ranks of our public asylums, epileptic, and consumptive hospitals; while others have entirely given up the life of teaching and have gone into a factory or shop." The editor asks, in effect, why the Headmaster's Conference is always regarded by the public with such amused irritation? One chief reason, he believes, is that "to most of us a headmaster is nothing if he is not administrative and executive—how then can headmasters, combined in one Parliament, be so inoperative, so like a debating society?" This, he is convinced, "is the unarticulated puzzle that bewilders many, and makes them think the conference a sort of demonstration of practical incapacity, none the better for being rather solemn and dignified." "Must" by Emily Miall is a ladylike article upon the text, "Children *must* learn many things that they *must* forget."

AMERICAN.

The Journal of Education (Boston, January) contains the second article on the Quincy movement referred to in our last issue, pp. (120-1).

It deals with the system of examination in the important subjects of History, Writing, and Geography. The history-examiners in the committee set almost the same questions every year and seemed to be pleased with the previously-prepared or well-got-up vivid descriptions and biographies. The immediate influence of the old system of cramming the pupils with all facts and figures seemed not beneficial and it discouraged the teachers. These then began to realise that they should, to meet the new demands, so prepare the pupils in history as to make them independent thinkers, readers, and students rather than mere memorizers. And from the constant fault-findings in the school work by the committee, it was gradually found out that this could be done (1) by 'training pupils to talk, to give, in their own words, the substance of what they had studied,' (2) 'by the economy of *teaching* history, sometimes orally, always stopically and picturesquely'.

The examination in *writing* was another branch which invited the attention of the committee. The old system of asking pupils to write with specimens before them was almost useless, the last-written pages in the copy-book being nowise better than the first. It was the examining-committee that impressed on the teachers the necessity and even the practicability of actually *teaching* how to write well. The result was that every pupil wrote much better and eventually convinced the teachers of the following principles.

1. "The teachers could not fail to see that the chief end in teaching writing ought to be to teach pupils to write well, not simply in a copy book, but in every school exercise, be it spelling, original composition, or letter writing.

2. Teachers had an opportunity to learn by experiment that teaching writing meant more than giving pupils a copy and leaving them under general supervision to imitate it; that it meant teaching the forms of all the letters and training the pupils to make them in combination rapidly, accurately, and neatly from force of habit".

The subject of geography was in previous years the worst-taught in the school. The chairman of the Quincy School Committee on one occasion remarked, "In geography a great many names and statistics are learned by school-boys which no educated person is expected to know or would care to remember if he did," and many facts are but 'worth-forgetting.' And this system proved a thorough failure when the examiner's favourite method was to ask the pupil to take imaginary journeys or voyages from one place to another, giving him a few hints for it, or to ask the class to point out on the globe or map ten places that they knew something about and to tell what they knew of them.

REVIEWS AND NOTICES OF BOOKS.

FORMATION OF THE UNION, 1750—1829, by A. B. HART. Epochs of American History. LONDON: Longmans, Green & Co., 1892. Price 2s. 6d.

This book is one of a series of three which together cover the history of the American nation. In 'get up' it will compare not unfavourably with the parallel series which deal with Ancient and Modern History. Indeed it presents some features in which it is a distinct improvement upon its predecessors. The lists of authorities and references prefixed to the volume as a whole and to each chapter in particular will guide the reader to sources of fuller knowledge. And for the class purposes for which it seems to be designed, the clear marking of sections and the insertion of dates at the head of each page as well as in the text will be most useful.

The task the author has undertaken is one of great difficulty. To give within 300 pages a clear and detailed account of the period selected would baffle any but a master. The series should have been longer if each volume was to be planned to the scale of this. The result is that the book suffers from the attempt at condensation. Had the writer been content either to give half the facts or to spread them over two volumes, his work would probably have been more satisfactory. As it is he has not left himself room to furnish these facts with their fit setting. We rise from the perusal with little sympathy with any actor in the history, and with no firmer grasp of principle than before. The book is lifeless.

As a text-book of facts too, it is marred by a want of arrangement. It would test anyone's historical skill to give a clear account of the anarchic period of America's history from 1780 to 1790, but Mr. Hart has made confusion worse confounded. Thus for example, after Sec. 57 'Disintegration of the Union, 1786, 1787' follows Sec. 58 'Reorganization attempted 1781—1787'. And so throughout the book, chronological order is sacrificed with no counterbalancing gain.

It is perhaps a sign of the times that 'although the book includes three serious wars, there is no military history in it'. But surely the author carries his principles to an extreme when he dismisses the military operations of the War of Independence in two or three sentences. He is perhaps as fair to England as an American can be expected to be, though in discussing the relative strength of America and England in the war of 1812, he sets all the resources of the one over against the

other, apparently regarding the exertions of England to overthrow Napoleon in Europe as rather increasing her advantages over America than otherwise.

The carefully drawn maps, prepared by Mr. Hart himself, add value to the book, though the first especially needs more explanation than is afforded even in the text.

The volume is a most painstaking summary of the events of the period, and certainly fills a gap in the apparatus of the teaching of history.

AN INTRODUCTION TO GREEK HISTORY, by MARK HUNTER, B.A., Principal of the Coimbatore College. Madras: V. Kalyanaram Iyer.

THIS is a careful and clearly written summary of Greek History during the period prescribed for the First in Arts Examination of the Madras University. With its Apparatus of Maps, Chronological Tables, and Appendices, it should be found a very useful working supplement to the *indigesta moles* of Schmitz, at least in all Colleges where the Professor himself does not supply the deficiencies. For purposes of instruction indeed this book must be one-sided, for the value to our students of learning Greek and Roman History lies in the fact that they learn both; and are, or ought to be, taught the lessons of History by the comparison and contrast of the Greek and the Roman ideas. If Mr. Hunter brings out a parallel History of Rome we trust he will keep this in view; for it is in the Roman History, after the Greek has been gone through, that the nails can be driven home.

HISTORICAL OUTLINES OF ENGLISH SYNTAX, by LOUIS KELLNER, Ph. Dr. LONDON, MacMillan, & Co. Price, 6s.

WE must admit to disappointment in this book, from which we had expected much. An avowed companion to Dr. Morris' 'Accidence' has a lofty standard of excellence to endeavour after; and, despite his learning, Mr. Kellner has not come within measurable distance of it. The book is declaredly incomplete and preliminary to a larger and comprehensive work, but, being intended for students, it should above all things be clear and accurate as far as it goes. His slipshodness and looseness of thought and expression is very un-German, and is shown in small things as well as great. Thus in his 'Principles of Syntax', he starts off with *Analogy*, which, as he explains it, is only the well known psychological *Law of Association*, a name which he gives no reason for abandoning. In Section 98 he introduces the term *paratactic* for the early co-ordination of sentences of different syntactic value, but in Section 100 he drops his

new phraseology without notice and goes on talking of *asyndetic* co-ordination. Again on one page he uses *psychological* and *psychical* as equivalent terms. Such carelessness is not confined to the terminology. In Section 26, he explains the ellipsis in such sentences as 'omnia præcham rara', 'first come first served', as due to the omission of the copula prompted by a desire for economy of speech. In Section 81 he quotes the same sentences and treats them as 'original states', or, as we should say, survivals, from a time 'anterior to the connection by means of a copula', when subject and predicate were 'simply juxtaposed'. These are not solitary instances, but characteristic of the whole book; we do not certainly propose to make a catalogue of faults, but merely to cite enough to justify our criticism and indicate to the author of a valuable treatise how he may improve it in the future. There is, however, yet one great blemish which we must call pointed attention to. The author has wisely translated the quotations from Old and Middle English, Old High German, &c., which he has supplied in such profusion. The translations are presumably for those who are unable to read the original—a class including the bulk of the students who will use the work. Now the extracts are in no ways valuable in themselves but as illustrating minute points of construction and arrangement. It was therefore essential that they should be translated *verbatim et ordinatim*. Yet this has not been done,—or rather, we should say, it is sometimes done and sometimes not done; no rule is followed; and consequently for a large section, perhaps the largest section, of the users of this book, these quotations have no educational value. For example, to illustrate the construction 'The Egyptians beheld the woman that she was beautiful', we have a M. E. passage translated 'If when thou sawest him about to fall, &c.', the proper version being, 'If thou *him* sawest that he fall, &c.', which illustrates the point. The next quotation is rendered correctly. Again, to illustrate the use of a construction parallel to the French *il est* followed by a plural noun, we have an O. E. sentence running, 'on the same robe was also written the names of the twelve patriarchs'. Our author translates 'were written', which of course destroys the point. Again in 291 a number of sentences are given to illustrate the throwing of the verb to the end of a dependent clause; except in one instance, the inversion is not indicated in the translation. In one there is even a double mistake, the principal clause being inverted in the translation and not in the original. Thus we read 'the meeker ought we to be and thank our Lord for it *who hath given it*'; correctly, 'we ought to be the meeker and thank our Lord for it *who it hath given*.' Again we read 'if a man have a refractory and rebellious son', for 'a refractory son and a rebellious'; the point being to illustrate the

transition stage between the ancient and modern arrangement. Once more, to exemplify the cross construction of clauses, we find 'that we love hard work and be afraid of ease', for 'that we love hard work and of ease be afraid'. These are of course only a few random specimens of the hundreds here, but the point is one to which, we trust, the author will look in a new edition.

Our author has intolerably hampered himself by his method of treatment. He thinks Mätzner would have been more generally appreciated had he been less systematic, and has therefore "thought it best to sacrifice system to usefulness". Yet strange to say, it is his pedantic adherence to system that renders his work such unsatisfactory reading. He lays down a most elaborate scheme of treatment, every paragraph having its subject. The result is that the great majority of his phrases and constructions require treatment under two or more of his heads; and instead of selecting one head under which to class his construction and dispose of it once for all, he treats each different aspect under its separate paragraph. The book is thus crammed with cross references, hardly a paragraph is complete in itself but has to be read in connection with others scattered through the book. The result is inevitable, overlapping, repetition, and general confusion. For example, the connected expressions 'It is me', 'It is I', and the M. E. 'It am I', are discussed, with repetition of the same examples, in no fewer than three places, Sections 79, 214, and 280. It would be unfair to criticise the author's theories. Some of them appear strange, and paradoxical; others are sufficiently self obvious; while not a few appear even here to be sound and new. But there is no generalization; nothing but a number of isolated points, comparatively unimportant in themselves but very useful when articulated into a complete framework. For this we trust we may look in the larger book Dr. Kellner promises. This will also supply the progressive quotations, without which the evidence is incomplete, without which the best of his theories must remain merely acute suggestions. It is a pity the big book was not written first and the handbook written on the basis of it. A far more valuable work would have resulted.

Though bound to point out the great deficiencies of the book, we cannot but admire the energy and enthusiasm of the author, and his evident acquaintance—extensive and scholarly—with ancient English literature. All this stands him in good stead and renders his book, even in its present form, indispensable to the teacher of English Language and Literature. What the writer has to remember is that Syntax comes too close to the domain of literature to be treated on purely linguistic methods. Professor Earle overstepped the boundary, perhaps; but there is no reason why the just mean should not be attained, if Dr. Kellner

without laying aside his robe of learning will emancipate himself from his self-imposed fetters.

MOTHERS AND SONS, by the Rev. the Hon. E. LYTTLETON, Headmaster of Haileybury College. LONDON, MacMillan & Co., 1892. Price 3s. 6d.

This is rather a pitiable sort of book to offer to an Indian mother; who has too often to content herself with thinking how she would treat her boys, if she were not all these thousands of miles away from them. But if she can only convince herself—and convince her husband too—that Mr. Lyttleton's ideal mother is the sort of mother she would have been, if fortune had not proved unkind, she will be all the happier, all the better, for the belief. It would thus be useless to criticise the details of this book, even if it lent itself much to criticism. One warning we would give. Most persons, certainly most mothers, will rise from the perusal of Mr. Lyttleton's pages confirmed in the conviction that the mother is the best and natural guardian for the boy. It is a fatal error to jump from this to the conclusion that in her absence the mother's sister, or father's cousin, or any other near female relative will form the second best. In nine cases out of ten, it will be better for the boy who has to be educated outside his father's roof, to be placed in charge, not of relatives however well-meaning, but of those who have made the training and education of boys a study and a profession. A public school and a master's boarding house may be—and not seldom are—an ideal home for the boy, whatever his special phase of character may be.

GOLDEN TREASURY SERIES—THE CHILDREN'S TREASURY OF LYRICAL POETRY, selected and arranged with notes by F. T. Palgrave: London, MacMillan & Co.

GOLDEN TREASURY SERIES—THEOCRITUS, BION, AND MOSCHUS, rendered into English prose with an Introductory Essay by A. LANG; London: MacMillan & Co. Price, each volume, 2s. 6d.

The well-known *Children's Treasury* re-appears in the new dress of the Golden Treasury Series. It is planned for children between nine or ten and fifteen or sixteen years of age, but we fear there are no children at these ages now-a-days; they are all men and women. Nevertheless there are plenty children of a larger growth, be their ages fifteen or fifty, who will delight in this varied and tasteful selection. Of course there are in this as in every collection some pieces we could have dispensed with. The inane 'Pet Lamb' and 'Alice Fell' would never have been missed. Indeed there is rather too much Wordsworth altogether. The Chimney Sweeper's boy no longer exists to be made happy by the dream

of rivers in which to wash himself white; and we deeply regret to see that that astounding fraud of our youth, the boy that stood on the burning deck, has got out on ticket-of-leave, we hope for this occasion only.

Another addition to the Golden Treasury Series is the dainty translation of the Greek Idyllists, by our nineteenth century Oliver Goldsmith. Some one remarked the other day that we should probably soon have an edition of the Bible edited by Mr. Andrew Lang; and we have no doubt he has issues of Newton's Principia, the Corpus Juris, and the Bhagavat Gita on the stocks; and we have equally little doubt he will adorn all with the same charm he has conferred on Homer and Theocritus. Indeed his prose is delightful and—more than can be said for some of our modern stylists—grammatical. The light touch of our premier 'literary bicyclist' is just the thing for these Alexandrian triflers. Here is, in verse however by Mr. Myers, a neat little Idyl of Moschus.

"Pan loved his neighbour Echo; Echo loved
A gamesome Satyr; he, by her unmoved,
Loved only Lydé; thus through Echo, Pan,
Lydé, and Satyr, Love his circle ran.
Thus all, while their true lovers' hearts they grieved,
Were scorned in turn, and what they gave received,
O all Love's scorers, learn this lesson true;
Be kind to Love, that he be kind to you."

WORDSWORTH'S POEMS, Aldine Edition, edited, with a Memoir by
EDWARD DOWDEN: Vols. II. and III.; London, Geo. Bell and Sons.
Price each 2s. 6d.

Two more beautifully printed, and carefully edited volumes of the Aldine Wordsworth, the first of which was fully noticed in our last issue. The present instalment contains Poems of 'the Fancy', and of the 'Imagination', Miscellaneous Sonnets, Poems to National Independence and Liberty, the Memorials of Various Tours.

A COURSE OF PRACTICAL ELEMENTARY BIOLOGY. By JOHN BIDGOOD, B.Sc.,
F.L.S. London: Longmans, Green & Co., 1893.

This book is one of the latest additions to Longmans' Series of Elementary Science Manuals, and to the rapidly increasing number of text-books on Elementary Biology. In point of cheapness it has an advantage over similar text-books; no equally comprehensive work has so far as we know been published at so low a price. The mode of treat-

ment of the subject is the one now commonly adopted, which we owe to Prof. Huxley, viz, the discussion of characteristic and easily procured vegetable and animal types. The types selected are mostly identical with those included by Huxley and Martin, in their well-known 'Elementary Biology', but in connection with the Flowering Plant, the Dead Nettle (*Lamium*), is substituted for the Bean, and in the Fern, *Aspidium* takes the place of *Pteris*—changes which hardly commend themselves to us and which render the book less useful than it might otherwise have been to Indian students. The descriptions are clearly written and are accompanied by practical directions which in most cases will be found sufficient for the purpose. An introductory chapter dealing with the principle of the microscope, and giving a short account of practical methods, is a special and useful feature of the book. A word may be said in commendation of the figures which occur numerously scattered through the text; the majority are good and a number are new. In conclusion we can commend the book to the notice of Biology students in the Madras Presidency or elsewhere.

ETHICS. An Introductory Manual for the use of University Students,
by F. RYLAND, M. A. London: G. Bell and Sons. Price 3s. 6d.

This manual will be found most useful to the student as it gives him, what is not easily found elsewhere, a good summary of the views of current authorities on the various branches of ethical theory. The general arrangement is specially adapted to the needs of students working for the examinations of the University of London, but Mr. Ryland does not confine himself exclusively to these lines, and his departure therefrom in his discussions on the speculations of the 'Evolutionary' and 'neo-Hegelian' schools lend additional interest and completeness to his book.

The sketch of English Ethical theories in the ninth chapter, though very short, furnishes the student with a good frame-work to be covered more fully as his studies progress. The appendix at the end of the book giving lists of books recommended and a course of reading on the topics treated in each chapter, is perhaps the most valuable part of the work. The latest authors have been consulted and full references are given under every heading.

The different sounds of *ough* in English are collected in the following sentence. "A rough-coated, doe-faced plow-man strode, coughing and hiccuping, thwartfully thru the streets of Scarborough" i. e. "A rough-coated, dough-faced plough-man strode, coughing and hiccoughing, thoughtfully through the streets of Scarborough."

UNIVERSITY OF MADRAS

L. T. DEGREE EXAMINATION

I.—Principles of Education.

I. Give, with reasons, the connexions between body and mind that are most important for the teacher to keep in view in intellectual and physical education.

II. Trace the order of development (a) of the principal so called intellectual faculties (b) of the leading emotions. Show what sequence of scholastic studies and methods of moral training should be followed in adaptation of those ends.

III. What is meant by spontaneity of movement, and what part is it alleged by Dr. Bain to play in the early stages of voluntary activity? How is a voluntary action to be distinguished from a spontaneous movement, on the one hand, and from a reflex movement on the other hand?

Give instances from school life when it becomes of importance for the teacher to be able to distinguish these several kinds of movement.

IV. Define sensation. Are there any good reasons for limiting the number of the senses to five? What is meant by "the education of the senses", and how is it carried on? Which of the senses claim the greatest attention from the teacher, and why?

V. State the laws of Association. What are the secondary laws of Association, or in other words the general circumstances which modify the working of the primary laws, whatever be the subject of study? Show which of these laws are mainly exemplified in generalization, memory, inference, imagination, definition, invention.

VI. What explanation, physiological, or psychological, or both, would you give of the fact that whereas one pupil has a powerful memory for subjects of all kinds, another has a retentive memory for one class of subjects and only a mediocre, or less than mediocre, memory for other classes of subjects?

VII. How do you explain the fact that an object or the idea of an object frequently brings up the contrary? What use would you make of this fact in teaching?

VIII. What is definition? On what psychological functions is it based? What notions are definable and what indefinable? With respect to the latter how would you proceed in order to convey your meaning to the mind of your pupil?

IX. How many things can the mind attend to at once? Is this question the same as the question how many states of consciousness may co-exist? Is the point one of merely speculative interest, or is it one of great practical moment for pedagogy? Give your reasons.

X. There is a danger of confounding reality in education with the mere teaching of useful knowledge. "Reality in education" says Mr. Sharpe, one of Her Majesty's Inspectors of Schools, "though it often coincides with future utility, is not identical with it; reality aims at developing the faculties on true principles and by sound methods; though the results may seem to bear very indirectly on the future career, they bear better fruit than attempts to give a premature technical direction to the mental efforts of our young scholars."

Discuss this point. Compare Mr. Sharpe's opinion with that of Mr. Herbert Spencer. What subjects would you select as fitted to secure to the greatest extent both ends—training and useful knowledge?

II.—Principles of Education.

I. Discuss the question of the true end or ends of Education and show that the Art of Education must rest mainly on principles furnished by mental science.

II. "For the first 12 years," says Rousseau, "the educator must teach *nothing*." Explain what Rousseau means and state what you consider should be the main task of the educator during the early years of a child's life.

III. What does Psychology teach concerning the connection of pleasures and pains with physical and mental exercise?

Point out the bearing of this connection on pedagogic practice.

IV. Distinguish between memory and imagination.

Point out the leading characteristics of children's imagination and show how the educator should deal with an over-imaginative child.

V. What are Aesthetic emotions and how do they differ from other emotions?

At what periods of life and in what forms do the former manifest themselves and what are the conditions favourable for their development?

VI. Define Sympathy and state the conditions favourable and unfavourable to its development.

Show that sympathy forms one of the most valuable agencies in education.

VII. Discuss the question of the Psychological character of the Moral Faculty and show what means and opportunities the teacher has for forming the moral character of his pupils.

VIII. "It is not at all uncommon," says Prof. Pillans, "for parents, in entering their child at school, to admonish the master to be sure and whip him well."

Discuss the question of the use and abuse of corporal punishment in schools.

IX. Write a short essay on the qualifications of a teacher.

III.—History of Education (General).

I. Illustrate from the early history of any European Universities the fact that their influence was largely liberal or anti-clerical.

II. Summarise the educational ideas of Rabelais, classifying them as critical and theoretical.

III. Show how the Reformation stimulated education.

Describe the educational system advocated by Luther. How far were his ideas realised?

IV. Criticise the educational system of the Jesuits from the point of view of moral training.

V. What did Comenius and Rousseau respectively understand by "teaching according to nature"? What meaning might the phrase have in modern pedagogies?

VI. Expose the popular misconception of "Froebelism" as concerned only with the training of young children.

VII. Describe the German system of popular education, and discuss the relation to it of compulsory service in the army.

VIII. What is a "Public School" in England? Sketch the history of any one of the older public schools and describe its present constitution.

IX. To what extent is education of different grades under Government control in England? Account for the differences you note in this respect between England and India.

IV.—History of Education.

The development of the educational system of India from 1854 to 1885

I. (a) State the most important questions of principle settled by the despatch of 1854.

(b) In what respect were these modified by the despatch of 1859?

(c) The demand for inquiry which led to the appointment of the Commission of 1882-83, was based upon the contention that there had been a complete or partial failure to carry out some of these principles. Wherein was it alleged that this failure had taken place?

II. (a) What is meant by the *Circle system* and the *Normal School system* respectively?

(b) Give the particulars of their history in Bengal until the Lt. Governorship of Sir George Campbell.

(c) What system of primary education did Sir George Campbell inaugurate?

III. (a) Give a brief account of the development of Primary Education in Madras down to 1882.

(b) What important principle with respect to Primary Education was definitely laid down by the Commission of 1882-83?

IV. (a) Enumerate the various systems of grants-in-aid in operation in India when the new rules were framed in 1865.

(b) The two most important of these systems were in force concurrently in Madras. Discuss their relative merits, in view of the circumstances of the Presidency.

V. (a) What arguments have been adduced for and against the direct connection of Government with Collegiate and Upper Secondary Education?

(b) Discuss this question specially with regard to the supply and status of teachers.

VI. (a) Describe without detail, the general distinctive features of the indigenous systems of education.

(b) Give a more minute account of the character and extent of indigenous education in (1) Madras, (2) Bombay, respectively, at the time of the Commission of 1882-83.

VII. Trace briefly the progress of Collegiate Education in Madras in the period 1854-85; and show in what respect the process of development essentially differed from that of Bombay and Bengal.

V.—School Management.

I. Draw a plan of the compound of an Upper Secondary School, showing—

(a) The ground plan of a School to include about five class rooms and the necessary subsidiary rooms.

(b) The gates, the latrines, the Gymnasium, and any other buildings in the compound.

The points of the compass should be noted on the plan.

II. Enumerate, with particulars, the Gymnastic Apparatus prescribed for a Middle School.

Discuss, from the point of view of the teacher, the relative value of Gymnastics (English or Native), Drill, and Sports (as Cricket).

III. Draw up a form of "Attendance and Fee Register". (To show two or three days will suffice).

Enumerate the principal points to be attended to in keeping the Register, illustrating by specimen entries in your form.

IV. "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 Head Master."

Discuss the principles on which these recommendations are based, pointing out why a difference is made between Upper and Lower Secondary Schools.

V. In an Upper Secondary School preparing candidates for the Matriculation Examination, containing Forms IV., V., and VI. only and having but one Vernacular,

(a) What staff would be required for efficiency, and what professional and educational qualifications should each member possess?

(b) State, in a general way, how you would distribute the work amongst the staff.

(c) Give a detailed time table for one week for Form VI., shewing both the subjects and the teachers.

VI. As Head Master of an Upper Secondary School,

(a) In what circumstances would you grant a pupil a leaving Certificate?

(b) Write out a complete leaving Certificate.

(c) Under what conditions would you admit a new pupil, and how would you decide in what class to put him?

VII. Give the rules of Discipline prescribed by Government for Aided Schools.

Discuss the practicability and the advisability of Indian Undergraduates wearing a distinctive badge or garb.

VIII. Discuss the advantages and disadvantages, economically and educationally, of having a special subject (e.g. Science or Drawing) taught by a peripatetic teacher, who visits several schools in a town, without being specially attached to any one.

VI.—Methods of Teaching

I. What are the various means by which you would seek to effect an improvement in English Composition in a 6th form?

II. How do you account for the inferior quality of the handwriting which usually prevails in our schools? Specify the prevailing defects and indicate suitable means of remedying them.

III. (a) What steps should you take in order to give your pupils a proper understanding of what a map is?

(b) What particulars of the geography of a country may be gathered from the study of a map?

IV. Distinguish between Education and Instruction, and explain how the two are related.

V. "The main business of the teacher is to get the pupil to teach himself." How does a teacher apply this principle in practice?

VI. Write all that you would consider necessary to be exhibited on the black-board in order to make a class understand the rule for the division of vulgar fractions.

VII. (a) State the arrangement usually adopted in drawing up notes of a lesson.

(b) Write notes of a lesson on one of the following subjects: the atmosphere, the circulation of the blood, chalk, mountains.

VIII. If 1000 men, besieged in a fort, and supplied with provisions for five weeks at the rate of 16 oz. a day for each man, be reinforced by 500 men, to what daily amount must the provisions be reduced for each man, if it be desired to make the original supply last eight weeks?

By what different methods may the above be worked? To which would you give the preference, and why? Work it out as you would have a class do it.

MADRAS GOVERNMENT AND UNIVERSITY NOTIFICATIONS.

Miss E. Carr, Inspectress of Girls' Schools, furlough for one year, from or after the 6th April 1893, under Article 371 of the Civil Service Regulations. Dated February 14th, 1893.

Miss Amy Matilda Christiana Arnold, to act as Junior Inspectress of Girls' Schools, Southern and Western Circles, during the absence of Miss Carr on leave, or until further orders. Gazetted, February 21st.

Miss Henrietta W. Bernard, Assistant, to act as Superintendent, Presidency Training School for Mistresses, during the employment of Miss Arnold on other duty, or until further orders. Dated February 21st.

Brigade-Surgeon-Lieutenant-Colonel Samuel Bradshaw Hunt to be Professor of Medical Jurisprudence, Medical College, vice Brigade-Surgeon Lieutenant-Colonel H. J. Hazlett, M.D. Dated 14th February 1893.

Surgeon-Major Crossdale Miller Thompson, M.B., to act as Professor of Medical Jurisprudence, Medical College, during the employment of Brigade-Surgeon-Lieutenant Colonel S. B. Hunt on other duty, or until further orders.

* These appointments to have effect from the date of return of Dr. Hazlett from furlough. Dated 14th February 1893.

Candidates for the ensuing Government Technical Examinations are informed that they must bring their drawing instruments with them for those subjects which require plans to be copied, or scales and diagrams to be drawn. The drawing paper required will be supplied to them at the examination.

Candidates for the ensuing Government Technical Examinations are informed that wherever the syllabus for any subject requires it, the necessary drawings, plans, surveys and field-books, must be submitted to the Secretary along with their applications, not later than the 1st March. Each drawing, plan, survey and field-book must show distinctly the name of the candidate and the subject and grade of examination for which he appears, and must be certified to be his work by the head of the college or office to which the candidate belongs, by an officer of the Public Works Department not below the rank of Supervisor, by a District Board Engineer, or by the Engineer of the Madras Municipality.

The next Written Examination for Teachers' Certificates will be held on Monday and Tuesday the 1st and 2nd May 1893. Applications from candidates must reach the Secretary at No. 54, Acharappan Street, Black Town, Madras, not later than the 15th March. Printed forms of application will be supplied by the Secretary.

Dr. Duncan, Director of Public Instruction, has notified that ladies and gentlemen wishing to see him on business should give him, if possible, twenty-four hours' notice of their intention and also indicate briefly therein the matters about which they wish to speak.

The following notice is published for information and guidance of Heads of Institutions:—No pupil should be admitted to an institution, provisionally or otherwise, without a leaving certificate. The admission of a pupil on his promise to produce such a certificate is the cause of most of the misunderstandings which come before the Director for settlement. The rules were framed so as to make the production of the certificate a preliminary condition of admission.

(Signed) D. DUNCAN,
OFFICE OF THE DIRECTOR OF PUBLIC INSTRUCTION,
MADRAS, 13th February 1893. *Director of Public Instruction.*

The Registrar of the University has notified that a Gilchrist Scholarship will be placed at the disposal of the University during the current year. All applications for the same must reach him not later than the 31st March 1893. The scholarship allowance, at the rate of £200 per year, will be tenable for three years and awarded to graduates of not more than 22 years of age who shall undertake to go through the course at any University or any Science or Technical College in Europe and pass the examinations necessary for obtaining a definite Science Degree or Diploma. The Scholarship is also open to graduates in Medicine on the understanding that they proceed to Europe to obtain a Degree in Science (not Medicine) in a British University. The detailed information of this Scholarship may be found in the University Calendar 1892-3, p. 202-4.

Applications for a Johnston of Carnalooch Scholarship will be received up to the 15th March 1893. The candidate must be a native of the District of Madras, and must stand highest at the last F. A. Examination, and continue for the B. A. It is tenable for two years at 20 Rs. per mensem if he studies at Madras, or Rs. 15 in the Mofussil.

Raja Sir T. Madhava Row's two prizes will be awarded, one to the student who stands highest in the first class in the F. A. Examination, and the second to the highest in the Matriculation. In both cases, the applicants must have been born or lived for ten years in the Collectorate of Tanjore, and must produce satisfactory certificates of good conduct. The Prizes, of money or books, as decided by the Senate, will be of the value of Rs. 60 and 40, respectively. According to the Registrar's notification of 8th February, all applications for these Prizes will be received up to the 15th March 1893.

It is hereby notified that all applications for appointment to Examinerships or Assistant Examinerships in the University of Madras should be made to the Registrar of the University, and not, either personally or in writing, to members of the Syndicate. The applications of persons failing to comply with this rule will run the risk of being disregarded by the Syndicate.

2. The applications should be made on printed forms available for the purpose at the Registrar's Office.

(By Order)

(Signed) GEO. BICKLE,
Registrar.

SENATE HOUSE, 6th January 1893.

It is the Director who must make the system of schools a highway helpful alike to the courser and the plodder.

The best definition of a technical term is the frequent correct use of it under conditions that enable the child to see precisely what it is of which he speaks.

"The American teacher can follow no model, his work is different from that of all who have gone before him." This is equally true if for American we read Indian.

THE INDIAN JOURNAL OF EDUCATION

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APRIL 1893

[No. 76]

The Editor begs to remind all LITERARY correspondents, as well as publishers forwarding books, magazines, etc., for review, that, to ensure attention, they should be addressed to him at PACHAIYAPPA'S COLLEGE, MADRAS; and, for publication in the succeeding issue, should reach him not later than the 20th of each month. All BUSINESS communications should be addressed to the Publisher.

EDITORIAL NOTES.

The address delivered at the Convocation of the Madras University by the Honorable V. Bashyam Iyengar, which we print in full in our present issue, worthily winds up the season of academic oratory. Mr. Bashyam Iyengar's speech had been looked forward to with interest, for not only is he a native gentleman of the highest professional position and recognised attainments, but he has, without losing touch of his fellow citizens, been always deemed reluctant to express his opinion on public questions, in speech or writing. Taciturnity and reserve on these matters have been his note, and there was no little speculation as to how far he would come out of his shell when the opportunity offered. His address in the result is certainly comprehensive enough, and there are some subjects at least which he has treated with firmness and boldness. He has indeed gone warily enough where the ice was thin, but when he felt his footing safe he cannot be accused of lack of courage.

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In purely academic matters he referred to Lord Harris' speech at Bombay the other day and echoed his desire that the University should aim at the higher and nobler function of

Office of the Registrar
of Books, Madras

teaching'. We shall not enter on this subject now, because we intend having, in our June number, a Symposium upon it, in which we expect several leading educationists to take part.

* * * *

We must say a word, however, about the regulations under which the Governor of Madras proposes to permit a few graduates of the University to elect annually two Fellows. These regulations we print on another page. As regards the electorate, they come to this, that out of a body of graduates numbering about 3,100, about 280, or less than 10 per cent., will be entitled to the franchise. The privilege cannot be exercised until 20 years from taking a degree, with the result in figures we have quoted. It is doubtless a lamentable fact that Indian graduates mature early and grow old before their time, but it is a fact to be taken into account nevertheless. The B.A. of 20 years standing means, on an average, the man of 42 years of age; and the man of 42 years of age means a man who is growing old and has probably reached the highest point he is likely to attain in his own line. Sir T. Muthusami Aiyar had been a High Court Judge for years before, under this rule, he would have been entitled to vote. The Hon. C. Sankara Nair, deemed worthy of a seat in Council and the Senate, will have to wait four years before he can participate in an election. In fact the whole list of graduates is studded with well-known names of men holding responsible positions,—all disfranchised.

* * * *

Still more extraordinary is the qualification of candidates for election. To become a graduate disqualifies. The failed B.A., the failed Matriculate, is eligible for election to a seat in the Senate, but the man who passes becomes immediately disqualified for either sitting or voting for a space of twenty years. We add our voice to that of Mr. Bashyam Iyengar in the hope that Government will reconsider these very remarkable regulations.

* * * *

The speaker very boldly advocated the abolition of the Matriculation Examination. In theory he is right, and the proposal has been more than once put forward and discussed of late years, while so many University reforms have been hatching. But much as we should like to see it, we fear the time has not come for so heroic a step. Not to put too fine a point upon it, there are

Colleges and Colleges; and while many, perhaps most, would maintain a respectable standard of admission without sinking all other considerations in face of the pecuniary, there would certainly be some that would be caves, and very crowded caves, of Adullam for the rejected. We shall probably be met with howls of disapprobation, but we must say frankly we see no way out of the difficulty until something can be done to check the multiplication of small second grade colleges. The second grade college has no proper place in the educational organism. It is but an overgrown High School; and its result is to shorten the real college career of the student to two years. We believe it would be infinitely to the benefit of every student to enter at once the first grade college and remain in it throughout his four year's course. We expect in the course of years to see the second grade colleges disappear, except in a few almost inaccessible spots. The better sort will grow into colleges, the weaker will die out. We are not ignorant of the underlying causes which prompt the present rivalry and urge on so many bodies of managers to apply for affiliation, but we do not think these causes are likely to be permanent. One strong first grade college for every three or four second grades would be a valuable and healthful exchange. Then we may talk about doing away with the matriculation examination.

* * * *

One other point we must refer to as being of the utmost importance and well deserving the weighty enforcement of Mr. Bashyam Iyengar. It certainly seems remarkable that the countrymen of Todar Mal, the men brought up under the shadow of the names of 'Madhava Row and Ranga Charlu', should show such a growing dislike for the Revenue and Executive side of the service. Doubtless the high prizes offered in the Judicial branch have had much to do with the result, and the throwing open Collectorships and other high appointments will doubtless work powerfully on the side of change. As Mr. Bashyam Iyengar well points out, the opportunities for usefulness to the community are more numerous, the influence over one's fellow countrymen greater, in the Executive service than in the Judicial. Yet how many of those that do join the Revenue Department, do so full of disappointment and anger at their hard fate. To 'join the Law Class' is the overwhelming ambition of every young graduate, and if prevented doing so by 'the eternal lack of pence' he feels he has been badly used by

Providence. Thus, not only Government clerks but teachers and employes of all kinds believe that they are compelled to a species of degradation; and if they thus look upon their work, how can they hope to become other than inefficient and discontented servants? How many young men do we not all know who spend their time in grumbling at their duties and speculating upon how they can manoeuvre to get transferred or promoted; without ever for a moment imagining that it might be for their benefit to endeavour to do heartily and with their best ability the work that is set to their hand to do.

* * * *

'Tis a curious process, that of being convinced by objective evidence that one is growing old. When subjectively you feel that you are as young as the day you heard the mystic words *Magister Artium* pronounced over your head, when you are not too far gone in wind and limb to be shut out from the amusements and avocations of earlier years,—then it comes as a sudden shock to find your old companions, some advancing to the name and fame you once thought within your own grasp, others, alas, passing beyond the bar whither you begin at last dimly to surmise the pilot must some day wait for you. Then the sight of old Charon's bark, even though others be his passengers, makes the middle-aged wayfarer wonder with a curious inquisitive self-introspection, whether there is any chance of his ever having the opportunity or the energy to be up and doing before the night cometh.

* * * *

The latest victim of Atropos is William Minto, whose name is, through his books, well known in India, and whose charming personality had endeared him to a wide circle of fellow-students and friends, not a few of whom are scattered about over Eastern lands. He was only forty-seven, but his heart was as young as on the day when he graduated in triple honours at Aberdeen in 1865, when the 'editorial we' was an admiring *bajan*. After a short and lurid visit to Oxford he returned to Aberdeen; and as an assistant to both 'Davie Thomson' and Dr. Bain, he was the life and soul of student society. He was a constant attendant of the various University Associations, and the guide, arbiter, and friend of many an undergraduate. His works on 'English Prose Literature' and the 'English Poets' gave him an enduring place in the literary world, and he was soon seated in the Editorial chair of 'The Examiner'.

As an occasional contributor to that once-famous, now extinct, journal, we renewed our acquaintance, and can safely say that in the decade of the '70's there was no more popular, more hard-working, or more radical denizen of the great 'Highway of Letters', which 'erstwhile led from 'the Rainbow' to 'the Cheshire Cheese', but now stretches from 'the Edinburgh Castle' to 'Ludgate Hill Railway Station', stretching out a long underground arm to the National Liberal Club and even the House of Commons. Then he retired to the comparative *otium cum dignitate* of the Professor's chair at Aberdeen which Dr. Bain had vacated; but whence he sent forth much good literary work. The best perhaps was 'Defoe' in the 'English Men of Letters' Series. His novels, clever though they were, never became very popular; the wit was rather too Scotch, the characterization too metaphysical, for the general public. His literary fame will rest on the powerful and well-ordered dissections of style in his critical Manuals; unless, indeed, they are eclipsed by his posthumous work.

* * * *

On this a writer in the *Daily Chronicle* says:—

"Mr. John Murray will have Professor Minto's last piece of work, his handbook on 'Logic, Inductive and Deductive', ready in a few days." Professor Minto had revised the last proof-sheets and written a little introduction before he was struck down by his fatal illness, and the volume, which is to be in the University Extension Series, is said to show him at his very best. It is, of course, intended for the student, but at the same time not altogether for the professional student only. The work consists of four parts, and the author is understood to develop some original theories on the science of logic."

* * * *

The same writer gives the following interesting note, which shows that the *Professor* was as popular as the student and the *litterateur*.

"The editors of *Alma Mater*, the bright magazine of the students of the University of Aberdeen, have issued a special number in memory of the late Professor Minto. Two portraits of Dr. Minto are given, and the letterpress commemorates him affectionately and appreciatively, in prose and verse, from various points of view. As the late professor always took the deepest interest in the students, so he always kept 'his eye upon' *Alma Mater*, frequently remarking to his English class upon articles in it that struck him as evincing notable qualities. Started ten

years ago, *Alma Mater*, enjoys the distinction of being now the oldest periodical that has ever existed in connection with a Scottish university. The direction is reasonably democratic, the paper being managed by twelve students, selected partly by the Students' Representative Council."

* * * *

The same mail that brought the news of Minto's death, carried the announcement that one of his oldest friends is to receive from his *Alma Mater* the well merited honour of LL.D. We are sure this recognition of the sterling merits of Professor Murison will be welcomed in a country where his 'First Work' has become almost a household book. Another habitué of Fleet Street, he has done much valuable work of the kind that the world accepts without asking who did it. Perhaps, next to 'First Work in English', his best known treatise is the 'Historical Introduction' to the last edition of the 'Roman Law' of Dr. Hunter, another typical Aberdonian. We know him well, but will borrow the words of praise from a great London Daily to which he is a regular contributor. The honour, it says, "is a well-deserved tribute to a scholar as honest as he is modest and sincere..... While his learning merits academic distinction, his amiable personal qualities render his friendship a charm."

* * * *

Talking of Aberdeen University we are reminded that it is about to celebrate its Quatercentenary. The Bull of Pope Alexander VI., establishing a 'Studium Generale' in Old Aberdeen, is dated Feb. 10, 1494—equivalent in present-day reckoning to Feb. 10, 1495. We learn from the home papers that a committee has been appointed to carry out the quatercentenary, and a pamphlet has been written by Mr. John Malcolm Bullock in order to induce them to devise a celebration comparable to the fêtes with which some of the great universities of the world have celebrated their respective anniversaries. Those he chooses as types, with the dates of their foundation, are: Bologna, 1088; Montpellier, 1289; Heidelberg, 1386; Upsala, 1477; Leyden, 1575; Edinburgh, 1583; Dublin, 1591; and Harvard, 1636. A brief account is given of the festivals held at each of these. We heartily sympathise with Mr. Bullock's wish to see Aberdeen celebrate worthily the moment at which she 'will be, for the nonce, the capital of the learned world'.

SHAM EDUCATION.

There is not a single passage in this whole discussion where the old and trite distinction between Education and Instruction must not be kept in mind.* In the case of Extension schemes there is, indeed, some teaching, but neither systematic nor general. There can be no attempt made to mould the pupil's mind and character; nor is this teaching much more than a prelude to the local examinations in which the pupils are to acquire certificates and titles. But the truly typical instances of instruction setting up for education are the examining bodies which assume the title of university, though lacking every single distinctive feature connoted by that ancient and once unambiguous term. Examinations are not essential to a university, nor are even competitions; but rather the prolonged and thorough teaching of the great subjects of knowledge concurrently, to pupils under moral discipline, leading a common life, and having their characters moulded by subtle forces which operate perpetually upon that common life. Even now when the old universities are violating their trust, when they are allowing examinations to usurp a more than subordinate place; even when they are relaxing those general requirements which constitute their only idea, for the pursuit of single subjects—even now the education of a university differs *toto cælo* from instruction induced by the tests of an examining body. The so-called graduates of such a concern come from the four winds of heaven, are not required to have any common life, nay even ordinary acquaintance; they have no common traditions, intellectual or otherwise; no solidarity, even in sentiment.

Why, then, is this monstrous birth of our century so prosperous? Why are its ubiquitous examinations crowded with candidates? Because it gives for very little money, and in return for a very small outlay, all the titles once reserved for those who had spent treasure in money and time to acquire them. These titles, however acquired, are the passports to many professions; as they

* It is worth pointing out that, while the French, who understand the use of language, call their director of this department the Minister of *Public Instruction*, the English, with greater ignorance (or is it greater assurance?), call him the President of the Board of *Education*—in fact, Minister of Education, though such a thing as real education is seldom dreamt of in the whole department.

104

once used to mark those who had leisure and means to be educated, so now they are still supposed to suggest the same distinction. But the B. A. is like the commission in the army, which used to mark the officer and the gentleman, and which is therefore still very attractive to those whose claim to be the latter is doubtful. Such attainments are now no longer the marks of better breeding or culture, but of success in passing an examination. How long the old associations will cling about either title is not a pleasant topic to discuss. What I am here more immediately concerned with is the effect which cheap university degrees will have upon the lower classes, or masses, who obtain them.

If the knowledge obtained by this instruction—I mean the preparation for the examinations—were to be utilised in the sphere of life occupied by the graduates, very good results might sometimes ensue. Here and there may also be found a dormant genius, whose energies are awakened by this stimulus, and who starts from mere examination work into independent thinking. I have never yet heard of such a case, but we must suppose it possible. The great danger, which is not theoretical or threatening, but practical and pressing, is that these titles conferred upon the poor and ambitious will set them to despise their own sphere, and seek the occupations of what are called gentlemen. Take the case of modern Greece. Here the Government gave free university education to any pauper who could support himself by the most menial occupations at Athens. This system crowded the country with graduates and licentiates, all qualified for the learned professions. What is the result? Fields, even in Attica, are lying fallow; every young graduate despises the plough and the counter; he must be a man of letters, an advocate, a politician, one of the intellectual classes. And so the cafés are political clubs; the daily press inundates the public; the professions are ruined with crowding, while the actual resources of the country in agriculture, mining, and the like are lying undeveloped.*

The case of Ireland is likely to be very similar. An examining body, styled the Royal University, established by the side of the

* While I am writing these words I hear that the present Prime Minister, the wise and enlightened M. Tricoupi, has established university charges at Athens; and so has driven away a hungry crowd, which would not, or could not, afford even nominal fees.

old and real University of Dublin, gives all the degrees required for professions for a few examinations and a few pounds. I need hardly tell anyone, even superficially acquainted with the country, that its farmers are so slovenly and ignorant, its business men so idle and slack, that we may safely aver not one-half the natural produce of the island is realised. Of course there are exceptions—admirably cultivated spots in the country, and energetic people in the towns; but they are exceptions, and what I say is strictly, if not universally, true. If the new spread of instruction were producing its expected results, these faults should be rapidly disappearing. I cannot see any such gradual improvement, but I can see very plainly that all the professions, including those of politics and of the press, are being crowded with second-rate persons. The old traditions of the Church, the Bar, the Hospital are vanishing; amid the throng of inferior men real eminence is disappearing; profits are becoming so small and precarious as to impair the liberty, and with it the dignity, of the professional man. The change of tone in these classes is even still more marked, and more regrettable.—J. P. MAHAFFY in *The Nineteenth Century*.

THE STUDY OF INDIAN HISTORY.

An interesting meeting of "the Maine Historical Society", Madras, was held in the Senate House on the 4th March. The Honorable Sir T. Muthusamy Aiyar, K.C.I.E., occupied the chair, and there was a large gathering of students and Professors from the various Colleges. In opening the proceedings, Mr. Adam explained how it was that owing to many of the promoters of the Society going on furlough or being transferred from Madras, almost at the same time, the meetings of the Society had been temporarily in abeyance. He mentioned one thing which if complimentary to the Society was not very creditable to India, that more copies of the printed Proceedings had been sold in England than in India; and that he had demands from their London agents which could not now be complied with, Parts I and II being out of print. He stated that His Highness the Maharajah of Travancore, the Honorable the Maharajah of Vizianagaram, and Setupati the Rajah of Ramnad had consented to become Patrons, and Mr. R. A. Nelson, Principal of the Law College, and the Rev. F. W. Kellett, M.A., Professor of History in the Christian College, to be Vice-Presidents of the Society.

Dr. Oppert then read a valuable paper on *The Bharatas*, which will form Part IV of his soon-to-be published work "*On the original inhabitants of Bharata Varsha or India*." The full paper will soon, we hope, be available in the Proceedings of the Society and in Dr. Oppert's work, and we must content ourselves with quoting the introductory remarks and the interesting concluding paragraphs.

"The hope which I expressed at the beginning of the third Part that an inquiry into the system of Indian theogony would corroborate the conclusions that had been previously arrived at by the linguistic evidence, has not been disappointed. Both inquiries indeed have elicited the fact, that the Aborigines of India belong on the whole to one and the same race, which being composed of Gaudians and Dravidians I should like to call *Bharatan*. In order to determine for a race the position to which its thinking powers entitle it, or to ascertain, as it were, its mental index, it is necessary to study the formation of its thoughts, in their linguistic and philosophical, or rather religious, aspects as revealed in the framing of words and sentences, and in the expression of ideas. For finally fixing, however, the place to which an individual or a community is entitled in the ranks of mankind, the condition of the mental qualifications must be supplemented by physical evidence, such as ethnology alone is able to furnish. It is therefore of great importance that the results of the ethnological investigation concerning the population of India should coincide with those gained by the help of philology and theology. In fact these three sciences agree in their conclusions that only two chief races exist in India.

"With these remarks I may proceed now to inquire into the political status of the ancient inhabitants of India. The two principal and rival races we meet here, are styled in Sanskrit *Ārya* and *Anārya*, names which correspond to the modern Aryan and non-Aryan, the latter being also described as *Dasyu* and *Dāsa*. The former represents the invaders of India, the latter its original inhabitants; for even if the Bharatas or Gauda-Dravidians had at an earlier period immigrated into India, we possess no information about this fact, and, so far as our knowledge goes, they occupied the country at a pre-Aryan epoch on both sides of the Himalayan mountains.

"We are likewise without any reliable information about the events which marked the progress of the Aryan invasion and conquest of India, but thus much is clear, that no sooner had the

country been finally occupied, and its former inhabitants been subdued or expelled, than the victors began to quarrel among themselves, and open strife and war broke out between the several tribes hitherto united in kindred friendship. The songs of the R̥gvēda are full of the valorous deeds performed in such internecine expeditions, which became the more frequent; the more the resistance of the aborigines declined, for the less the Aryans had to fear them, the more they could indulge in combats among themselves. Occasionally the excessive strength of one tribe gave to others a welcome pretext to oppose and subdue it, and in order to overthrow the growing ascendancy of a clan, confederacies were formed to remove the danger which threatened the independence of the rest. Among such confederacies one of the most renowned is that of the five tribes, which comprised the *Turvasa*, *Yadu*, *Anu*, *Druhya* and *Pāru*. The various wars which were waged by *Sudās*, the famous king of the *Tr̥tsus*, brought about such alliances in which Aryans and non-Aryans fought together on both sides. It is indeed very difficult to decide in every single case whether a tribe is of Aryan or of non-Aryan origin, because the evidence on this point is so deficient that the opinion of scholars is of necessity much divided. General opinion is unanimous on the point that the *Tr̥tsus* were a powerful Aryan tribe, and that the jealousy of the two great Brahmanic sages, *Vasiṣṭha* and *Viśvāmitra*, who at various times occupied the office of high priest to king *Sudās*, caused to a great extent those wars which ended at last with the disastrous overthrow of the *Tr̥tsus*. Even after *Viśvāmitra* had been compelled to make room for his rival, fortune remained faithful to *Sudās*. He defeated king *Bhēda*, and under the guidance of *Vasiṣṭha* the *Bharatas*, to whom *Viśvāmitra* belonged, were broken like staves (R̥g. VII, 13, 18, 19; VII, 33, 3, 6, etc.); and the ten kings who opposed king *Sudās* were thoroughly defeated in the battle on the banks of the *Paruṣṇī* (R̥g. VII, 18; 83, 6, 8). But the Aryans on either side were not strong enough to fight these combats unaided with any chance of success, and hence required the support of allies, whom they sought and found in the camps of their national foes who took part in this battle of the ten kings.

"Another difficulty in this inquiry is the uncertainty felt in knowing or deciding whether a proper name, if used in the singular number, applies to an individual, to a family, or to a tribe, for the

exact meaning often cannot be gathered from the context; as is the case with names like Dr̥bhika, Kavaṣa, Nahuṣa, Sr̥ñjaya, Tarukṣa, Tugra, Vētasu, and others. It is also possible that the plural of the name of a person occurring in the Vēda, only applies to his posterity, and not to a tribe, the wider meaning being also admissible, especially when referring to a feudal community, such as prevailed among the Scotch clans.

"As the R̥gvēda is a compilation of songs by different authors of different times, it is, I think, rather hazardous to use the language or the meaning of one stanza or song for the explanation or interpretation of another, unless the authors of both are the same, or cogent reasons favor such a proceeding. If we meet thus with considerable obstacles in elucidating the details of the clan-formation in Vedic times, we must also on the other hand not overlook that, however deficient our knowledge of this period is and always will be, so much is certain that the Aryan invasion of North India was successful, that the border-country was permanently conquered, and that the subjugation of the adjacent provinces to Aryan rule had in consequence become an inevitable destiny. It is, however, quite a different matter to dilate on the ethnological constitution of the invaders, whether or not they formed a homogeneous group of Aryan tribes. It is not only possible, but also highly probable, that friendly aliens swelled their ranks, and that, as is generally the case with migrating peoples, the weaker tribes whom they had dispossessed were compelled to follow in their tracks. When immigrating, or victoriously invading, swarms of people settle down as a stable community, their various heterogeneous component elements amalgamate gradually into one national body, which presents to the outside world the aspect of a united nation, when even its multigenerous origin is still conspicuous and lives fresh in the memory of others. By and by with increasing power, the admission to citizenship will be rendered difficult, till it may be altogether denied to newcomers. We have in the United States of North America a modern instance of the formation of such a state, and the foundation of Venice by frightened fugitives who were joined by bold adventurers was followed in course of time by the establishment of the proudest aristocracy, which displayed its exclusiveness by the closing of the golden book: A like fate befell the Aryan settlement in India, which, free and liberal in its constitution at the beginning, became by degrees conservative

and exclusive, till at last by priestly preponderance it developed the most successful and pernicious system of caste the world has ever known. Yet before this social edifice had assumed the immutable form, it now exhibits, there preceded a time when its various portions existed separately and were not mixed with others. There can be no doubt that though the national Aryan stock prevailed among the Brāhmanas, many foreign bodies had joined before it became consolidated as a Brahmanic caste: but once thus constituted it remained on the whole unchangeable, even if at times strange elements found access to it in a surreptitious manner.

"If I now summarize the conclusions to which I have arrived concerning the Bharatas, I contend that the Bharatas mentioned in the R̥gvēda, principally as the followers of Viśvāmitra, were warriors of non-Aryan origin, who disconnecting themselves early from their aboriginal kindred and gaining access into the Aryan pale, became by their superior prowess and influence the representative tribe of the Aryan race, as their relatives beyond the pale were the representatives of the aboriginal inhabitants. They were divided into two great branches, the Kurus and Pañcala-Pāndavas, round which were grouped the other smaller clans. In a similar manner two great tribes, the Gaudians and Dravidians, formed the chief component parts of the non-Aryanised Bharatas, who, split up in numberless sub-divisions, were spread over the whole length and breadth of India, and even beyond it, if we include the Uttarakurus and Bāhlikas with their immediate kindred who lived beyond the Himalayan mountain range. I have given a list of these various tribes in some previous chapters. Though the non-Aryan population everywhere considerably outstripped the Aryans in numbers, the latter, except in the case of some northern districts, though forming in fact only an infinitesimal fraction of the inhabitants of the Indian peninsula, were nevertheless able to gain and to retain dominion over the numberless aborigines by the display of their superior mental and physical powers, to exact implicit obedience to their behests, stamping on them the seal of divine ordinance, by arrogating to themselves the title of Gods on Earth. And yet while occupying without dispute the position of lords over the whole country, these masters when naming the land could not find a more suitable appellation for it than one which contains the name of the most prominent and powerful indigenous race, the Bharatas, connecting it with their eponymous king Bharatas. In

consequence, I prefer as India's name the designation Bharatavarsa, or land of the Bharatas. Indeed, if I may venture a suggestion, I think that as a general name comprising all the inhabitants of India that of Bharata should have the preference, because all classes and clans of the population can put in a claim for it. Even the Brāhmanas, to whom it does not properly apply, could have no objection to it, in consequence of their ancient and intimate connexion with the Bharata-kings, and their present high position as principal leaders in temporal and spiritual matters of the population of Bharatavarsa. Such a name will bridge over the great social chasms, which divide at present the Hindus, and perhaps bring together in union the two great antagonistic sections of the original inhabitants, which since the earliest times of antiquity have lived estranged from each other, not always, perhaps, in open enmity and war, yet never in sincere friendship: I mean those divisions which appear in history at various times and occasions as Kurus and Pañcālas, Gaudians and Dravidians, Kurumbas and Pallas, etc. To all these kindred tribes, as to the Kurus and Pañcālas of old, the term *Bharata* can be applied, as it includes all Aryanised and non-Aryan Indian clans within and without the Aryan pale, and I consider that by accepting such a time-honoured and honourable name as their national designation, a great step towards national unity would be taken in India".

In concluding the proceedings the distinguished Chairman made some most important observations on the study of history, which we reproduce in full.

GENTLEMEN,—I have not come prepared to make a speech this evening. I have also not had the opportunity of previously reading the paper which has been read to you, so as to be able to make some remarks with reference to the various topics discussed therein. But I may say our warm thanks are due to Dr. Oppert for the very learned paper which he has read to us this evening (Applause). It is a paper such as would be reasonably expected from a gentleman in the position of Dr. Oppert, who has for many years taken a warm interest in the welfare of the inhabitants of this Presidency, in the study of Sanskrit literature, and in constantly endeavouring to trace historical sequences between isolated and apparently unconnected historical facts mentioned in Sanskrit literature. I do not undertake to express an opinion whether the historical sequences referred to in the learned paper which has been read, are the sequences which would be adopted by you all; but this much I may say, they are sequences which may be fairly indicated as the proper

sequences, and as such others learned in Sanskrit may take up the paper and consider whether those sequences are the correct ones. If those who are interested in reviving the study of history in its true spirit in this country make it their duty to read the papers which are read to them at these meetings, and to consider whether what is said here is open to any criticism or is worthy of adoption, we shall, I believe, in course of time make progress in the acquisition of knowledge of our ancient history, and also the methods by which we may endeavour to acquire a useful knowledge of our ancient history. I am also glad that Mr. Adam has returned to India. At the time of his departure there was a dispersion, which he has referred to, and by reason of that dispersion our meetings have been in abeyance, and nothing was done during the period when Mr. Adam was away. Now that he has returned, I hope we may resume our energy, and that these meetings will be regular and the objects we had originally in view be prosecuted with regularity and vigour. I may say, however, that from the very commencement I have taken considerable interest in the work of the Society. I also take considerable interest in its success. My reason for so doing is this. I find from my own experience in life that many of our graduates who know a great deal about Europe, about America, about China, and about the savages of North America, know very little about ancient India. If they are asked to explain the mechanism of their social life, or the mechanism of their domestic system, they very often show an amount of ignorance which has often given me great pain, and if the English-educated youths of India are to be accepted by reasonable men as exponents of progress, and if the cause of progress is to be entrusted to their keeping, it is necessary that they should first know what they are and how they have come to be what they are, before they can hope to be what they desire to be (Cheers). I have always thought that the study of history should be pursued on the same lines on which the study of law is pursued, and has been pursued, by eminent jurists in Europe. It is not enough to know a rule of law—and yet many of our graduates who have committed to memory several rules of law, think that thereby they become lawyers. Does not every one see that they are not lawyers? What is necessary is that they should not only know the rule of law, but the reason on which the rule is based. He who does not know the reason of law does not know law. It is not enough that they know the reason of a single rule of law, they must know all the various modifications which the rule has to undergo, by the introduction of specific additional facts, and they must study all the qualifications, as they are called, to which the rule is subject, and they must know the reason of each qualification. Furthermore, in modern Germany there were two schools originally, before the modern

German law obtained its present position *viz.*, the Historical School and the Philosophic School. The object of the Historical School was to trace the law from its original condition to its present condition. The object of the Philosophic School was to indicate what the law should in reason be, so that it might be adapted to the actual exigencies of the present time; and what I have always thought is, that in the study of history we should study the history of our civilization. We should study our social system and the principles which underlie that structure and we should study the system of our domestic life and also note the influences which bear upon this mechanism. We should also trace the history of each influence and refer it to the several historical events which have modified that influence from time to time. Unless in this way we have an accurate knowledge of our own civilization, it is idle to talk of men who do not possess that knowledge as being able to bring about a regeneration of India. Of course it is not because a theorist from the standpoint of reason says that a particular thing is good that therefore that should be adopted by the whole community. What the theorist may say may be good; but the methods which he suggests will prove crude and ill-adapted to the habits of the people in the country. Therefore whatever may be the earnestness, and whatever may be the zeal with which you may advocate reform, whatever may be the amount of self-sacrifice to which you may laudably submit, you may not achieve any considerable amount of success and be commended for your labours. What is really needed is this. We should not only know what the proper course is and what ought to be the healthy and honest way to introduce it, but we should also know how to introduce that influence so as to make it a living influence in the society in which we move. I may illustrate what I mean, and refer to what is often done by doctors. A certain drug is prescribed by Medical Science as producing a certain condition of things. The condition of things which it produces varies with the constitution of each patient the physician has to deal with. The patient may be a child, the patient may be grown up, or may be an able-bodied man. In administering the dose the physician has to adopt a medium which will readily assimilate the substance of the drug into the system of the particular patient he is dealing with. In the same way the knowledge of our civilization under the various influences which underlie it and the history of each influence will suggest to us many methods whereby the unique principles which we wish our countrymen should adopt, the influences which we desire should animate them, may be assimilated into their home and social life. With these remarks I have again to express, on behalf of you all, our warm thanks to Dr. Oppert for the very able paper which he has read to us. (Applause.)

CONVOCATION OF THE UNIVERSITY OF MADRAS.

*Address delivered by the Hon. V. Bashyam Aiyangar,
Tuesday, 28th March, 1893.*

By desire of the Chancellor of this University, I rise to deliver, at this Convocation, the customary address to the graduates, on whom the various degrees have just been conferred.

Gentlemen, on behalf of the Senate, I have the pleasure to congratulate you on the academical honors which have crowned your studies, and to express our best wishes for your success in life, and our hope that, in your future career, you will "conduct yourselves suitably unto the position to which, by the degrees conferred on you, you have attained."

Year after year, the duty of addressing graduates becomes more and more difficult. While it is by no means easy to find new topics for discourse, it demands no ordinary scholarship to impart to old ideas the freshness of new life. It was, therefore, with considerable diffidence that I undertook to discharge the onerous duty of this evening; and I labor under no small disadvantage in coming after many illustrious and eloquent speakers.

This University, which has been in existence for upwards of thirty years, is purely an examining corporate institution. In the language of the Act of Incorporation, its function is "to ascertain, by means of examination, the persons who have acquired proficiency in different branches of Literature, Science and Art, and to award them academical degrees as evidence of their respective attainments."

In answer to the very first question put to you to-day by the Chancellor, you have promised to conduct yourselves as becomes members of this University. I should very much wish that the graduates of this University were, not in name and by way of courtesy only, but in reality, its members, by being incorporated therewith, after the manner of English Universities. I am glad that the Government of Madras has, following the example of Calcutta and Bombay, now recognized the policy of such relationship, and have resolved to grant to the graduates of this University, under certain limitations of standing and qualification, the right of returning annually, by election, two Fellows of the Senate. This is a step in the right direction; although I should very much desire that the limit of years, in the case of Bachelors, was much less than it is, and that the election was only from among graduates. Some years ago, a proposal was started by our Senate to establish, in

connection with this University, a convocation of graduates similar to that of the London University. The proposal did not then meet with the approval of the Government of India. When the University expects its graduates to conduct themselves in a manner worthy of their association with it, it is but just and proper that it should repose confidence in them, associate them in its mission, and create in them an *esprit de corps* and a bond of union.

One of the several ways, in which a wholesome relationship between the University and its *alumni* may be established, appears to be the founding of a University library, adequately representing all departments of literature, science and art, and freely accessible to all its Fellows and graduates. If the library be kept open throughout the year, including holidays—Sundays of course excepted—it will not only become a favorite resort of graduates resident in Madras, but draw to it periodically a large number of those who are now scattered in the Mofussil, with nothing to bind them at present to their University or to its members. The establishment of such an institution will, I believe, also widen the scope of University endowments, which are now practically restricted to the founding of a scholarship, a prize or a medal. Beyond perpetuating the memory of the donor, or of some person in whose honor it is founded, a prize or a medal is of little utility in advancing the cause of sound education; and a scholarship, except when it helps a poor student on to study, serves neither a useful nor a charitable purpose. A library will, I believe, give a far more useful direction to the University endowments; and donors will have the choice of contributing, in their names and in such sums as they please, to any section of it.

At all the older University centres in India, a feeling has grown of late that the University should be not merely an examining and degree-conferring corporation, but should aim at the higher and nobler function of teaching. It was only the other day, as you all know, that Lord Harris gave forcible expression to this sentiment, at the Convocation of the Bombay University, and made an eloquent appeal to the Chiefs of the Bombay Presidency, urging them to found Professorial chairs in their University for different branches of knowledge, and added that "towards such an endowment fund, it would be a legitimate thing for Government to make a handsome contribution." Noble as is the object proposed, its accomplishment, however, implies the expenditure of an enormous amount of money. Bombay, with its pile of wealth, may aspire to make its University a centre and a home of culture and learning; but the day is, I think, far distant when Madras will have its ideal University. Even here, a beginning, however humble, can be, and

ought to be made. The Native States of Haiderabad, Mysore, Travancore, Cochin and Pudukota are deeply interested in our University to which their leading colleges are affiliated, and from which they draw their best recruits for their Service; there are also our Maharajahs, Rajahs, and other noblemen, who have patriotically established colleges of their own, likewise affiliated to the University. It seems to me, therefore, that if the Government of Madras should set the example by founding one or two chairs in the University, our Native Rulers and Nobility would gladly follow the good example, endow additional chairs, and thus enlarge the scope and usefulness of the Institution. And as time rolls on, other native benefactions may gather round the University and add to its wealth by endowments for chairs or fellowships, or by building lecture-halls and suitable lodgings for professors and pupils. The chairs proposed might, for the present, be for the advanced studies prescribed in two of the branches of the Master of Arts course. They should be filled by eminent teachers from Europe; and even if a few students should annually receive the benefit of such high-class teaching, and what is more, imbibe the influences of a real University life, it would be no small gain to the country. Once begun, the good work will progress, and spread far and wide the higher influences of the University. And let me here mention that this ideal of University education is by no means foreign to India. It was typified in the old system of pupils or *sishtyas* receiving in the hermitage or home of their teacher or *guru*, lessons in high-class oriental philosophy and religion. It has often been observed, with truth, that though "modern India has proved that her sons can qualify themselves to hold their own with the best of European talent, in the Council Chamber, on the Bench, at the Bar, and in the Mart, yet she has not produced her philosopher, her moralist, her scientist." The reason for this state of things is not far to seek. A talented Indian, who has had the advantage of an English liberal education, and entered a particular profession, receives in the very exercise of his profession the best training possible, and rises to high distinction. But the case is different in speculative and original branches of knowledge and thought. A long time must elapse before Indian students of western literature, philosophy and science can become so steeped in them as to distinguish themselves by original research. Ancient India did produce her renowned poets, philosophers and theologians; and I am sure the past will repeat itself in the future. As our Universities rear up a band of enthusiastic and devoted scholars, to whom learning will be their lifelong vocation, modern India may compete with the civilized West in literature, philosophy and science as well.

In certain quarters, a distrust has now and then been expressed as to the effect of Higher Education in this country and as to the policy of the State in maintaining and aiding it. It is recklessly asserted that it produces a band of discontented and disaffected agitators. If there were any truth in this assertion, there must certainly be something radically wrong in western literature and science. To my thinking, nothing can be a greater libel upon this noble literature and science, or upon educated Indians, than such a baseless cry. Among the manifold blessings that England has conferred upon India, nothing stands, or can stand, higher than the gift of western knowledge. She has been bestowing on the sons of India some of her most cherished institutions, and among them, the liberty of speech and the freedom of the press. History does not show another instance of a policy so generous as that which England has pursued in India. And who, in the very nature of things, should be the best to appreciate these blessings? It is, undoubtedly, they who have received also the benefit of a sound western education, which, in the fullness of England's wisdom, she has soliberally given to India, and for which she has reared these lasting monuments of her glory, to wit, the Indian Universities. I have no hesitation in saying that western education is the strongest foundation on which the loyalty of the Indian subjects to the British Throne rests. Whatever may be the political aspiration and demands of the educated natives—be they all wise or not—I feel sure that, as a body, acting if only under selfish motives, not to speak of all higher and nobler instincts which cannot be absent, they are swayed by the one sentiment of loyalty, attachment and devotion to the British Throne.

In civilized countries one of the chief objects of the State is to give a political training to its subjects. It behoves the educated native, therefore, to prove himself worthy of such education, and to be of real service to Government. On the one hand, he has to interpret truly and faithfully to his countrymen the objects and intentions of Government, in its various administrative and legislative measures; and on the other, to communicate to the Rulers the views and sentiments of the people on all questions vitally affecting them. It is but right that he should have political aspirations and take an active and intelligent interest in all movements of a political nature. And depend upon it, gentlemen, that the policy of the British Government will always be to grant to you such political privileges as you may be found worthy of. Remember that your great mission is to help the work of good Government. Never be tempted, by the use of violent language, to misguide the people, or subject the acts of Government to unfair and undeserved criticism. Before you take part in any movement, however constitutional it may

be, study the question in all its bearings and satisfy yourselves that the object of such a movement is reasonable and practicable. Above all things, let me caution you against the error of supposing that politics needs no study, and that every man is a born-politician. In all movements in which the masses are interested as much as, if not more than, yourselves, you should endeavour to give them a good political training and be their faithful guides. Let not your study and interest be confined to the complicated problems in India politics, but let them extend freely to the humbler details of Indian administration—humbler but none the less useful. Reforms in this direction are comparatively easy and practicable.

There are some who are fond of saying that the legitimate sphere of action for the educated native is the field of social reform and not of politics; and that he should not be taken as representing the views and sentiments of the dumb millions. In the very nature of things, the so-called dumb millions can be represented only by the educated native, and it is incumbent upon the latter to enlighten the masses and educate their feelings and sentiments. One of the chief objects of Government in giving you the education you have received is that you may facilitate the work of administration, and be interpreters between itself and the people.

Municipalities, Local Fund Boards, and the system of trial by jury have now been in existence for some years. The principle of popular election by vote has been recognized in the constitution of municipal, local fund, and temple councils; and it has just been introduced, in a modified form and to a limited extent, in the Imperial and Local Legislative Councils.

Remember, gentlemen, that this system is on its trial in India; and unless you prove to your rulers that you are fully alive and equal to the responsibilities imposed upon you, you will not be justified in asking for greater privileges. It, therefore, behoves you to exercise the right of voting with discrimination and a sense of responsibility, and to impress upon the minds of electors the importance of the franchise. Popular election can work successfully only when every individual vote, though in itself a drop in an ocean, is realized to be of sufficient importance to be given, and to be given too, under a sense of public duty, and not from considerations of race, caste, kinship or friendship.

There is some misgiving in the public mind regarding the future policy of Government in the matter of Higher Education. It is to be sincerely hoped that there is no cause for the apprehension that Government, in its desire for the promotion and spread of primary education, will practically withdraw its support to Higher Education. The

inevitable result of such a step will be a marked deterioration in its quality. Though we hope that the time will arrive when the people of India will become sufficiently enlightened and advanced in material prosperity to undertake the task of national instruction, by private resources and private organization, subject only to a general control by the State, yet it must be confessed that such hope belongs to the distant future. In a country where the requirements of the Public Service and of the learned professions, no less than cultivation of social virtues, demand it, Higher Education ought not to be left to suffer under a narrow spirit of financial economy. Any amount of money spent by the State in the advancement and extension of Higher Education will be amply repaid. It will further the cause of good government, and facilitate the introduction, by Government, of all reforms calculated to develop the resources of the country and advance the people.

The promotion of primary and secondary education, is as essential as Higher education is to the welfare of the nation. All kinds of education, whether primary, secondary, higher, or technical, have an equal claim upon the State, and one cannot be neglected without prejudicially affecting the rest. On this subject, I cannot do better than quote the admirable words of Sir Richard Temple, who observes :—

“We cannot say that any of them is more important than the others; all are conducive to the good of the people. Nor can any one be treated separately from the other. They are co-operative, one with the other, and are almost interdependent. If the nation under our charge be regarded in its corporate existence, we shall find that primary education supplies material for secondary education; that advancement of secondary or intermediate education reflects back energy upon primary education; that secondary education leads up to high education, which again, elevates the tone of everything below it, and supplies the fittest instruments for all other sorts of instruction.

“National education in its totality may be likened to the beautiful structure in which we are now assembled. Primary education is as the plinth with the foundation broad and deep; secondary education is as the superstructure with its walls and pillars; high education is as the roof with its domes and towers. No part of the structure can be injured or neglected without affecting the safety, or the usefulness, or the beauty of the whole. And as the architects have bestowed care on all parts alike, so is the Government bound to attend equally and simultaneously to the three departments of education.”

It may not be out of place here to refer to one or two evils that have crept into our system of education in recent years. The old method of teaching, by catechising has given way to the new one of

lecturing. Instruction by means of lectures may be all right when the pupils are far advanced and when the lecturer can impress on the minds of his hearers. But I am afraid that the majority of the so-called lectures are as monotonous and unimpressive as is the charging of a jury in most of our Indian courts. This ambitious style of teaching by lectures is not confined to the higher collegiate classes; but obtains in the lower collegiate classes and is fast extending to high and middle schools. Thus the primary object of education is defeated. The dormant and undeveloped faculties of the youth are not evoked and trained. In the days of the old High School, and in the earlier days of the Presidency College, when the classes were small and when lecturing was unknown, the pupils had the benefit of a sounder training and of a freer scope for the development of the capacity for observation, reflection, thought and self-culture. What is still more to be deplored is that personal influence, as such, of the teachers over their pupils is growing less and less. All, who have been under good teachers, know the inestimable value of that personal influence which, as Cardinal Newman justly remarks, constitutes the very life of a university education. Under a formal system of lecturing, without catechising, and without too, any mode of tutorial instruction such as obtains in Oxford and Cambridge, few are the opportunities that teachers have of coming in contact with the minds and hearts of their pupils. I have pointed out the evil as it exists, due in a great measure to the crowded classes that teachers have now to handle, and must leave the remedy in the hands of experts in education.

Another of the evils I wish to point out here is the multiplicity of our public examinations. I do not refer to the various qualifying or competitive public examinations held for the purpose of recruiting the different branches of the Public Service, nor to those examinations held in schools and colleges which, highly useful as they are, are, I fear, being gradually given up. The examinations I have in view are those conducted by the Department of Public Instruction for subjecting to one test the pupils of all schools, at certain intervals of their studies, for securing uniformity of standard in instruction, or for regulating results-grants. I am aware that theoretically these examinations are not compulsory, and that departmental, statistical, and financial considerations may be urged in their favor. But I have no doubt that these examinations have a most baneful effect, that they encourage cram, subject the tender mind to severe and unwholesome strain, and interfere with that freedom of the teacher without which he degenerates into a grinding machine. It seems to me that the time has come for the abolition of the Matriculation examination also. It has outlived its date. It is no longer

recognized as a qualifying test for public service, nor even for any degree examination other than the Licentiate in Medicine and Surgery, for which it is felt to be inadequate by many. The only practical purpose that the Matriculation now serves is to regulate the standard of admission to colleges, a work which may be more safely left to the heads of institutions. With the enormous numbers that go up for the examination, it must be extremely difficult to secure even a uniformity of standard. And when it is remembered that a large percentage of those who matriculate do not intend to go at all, through any collegiate course in view to a University degree, the argument for its abolition receives additional strength. Examinations, oral and written, held periodically in schools and colleges by the teachers, are an indispensable auxiliary to education, and enable the teachers to know and rectify the defects of their pupils. I need hardly say that considerable importance ought to be attached to oral examinations which, sad to say, are falling into disuse. An oral examination serves to bring out the knowledge or ignorance of a pupil much more effectually than a written examination, and is itself an education for the practical business of life. Not the least of the evils of public examinations is their tendency to subordinate teaching to examination; and sink the teacher in a cast-iron system of routine. It was not without truth that a popular journalist recently said: "Examinations in these days have become such bugbears to people in every sphere of life that they begin to haunt mothers as soon as their sons are born, and they threaten to engulf their daughters also." When a boy or a young man fails in a public examination, the failure is regarded by his relatives and friends as a personal and domestic calamity. The sad moral effects of such a feeling is hardly necessary for me to dwell on. Suffice it to say that not a few are those whom the shock and the disgrace unfit for further study.

TO GRADUATES IN ALL THE FACULTIES:

Your future prospects, so far as they depend upon the policy and action of Government, are indeed bright, brighter perhaps than those of graduates in any other country. Government, as you are aware, attaches a high value to the University degree. Nearly all the higher appointments in the Educational, Revenue and Judicial Departments will, in future, be practically reserved for you. The Police Department, too, is now holding out attractions for University men, and may, ere long, throw open to them its higher grades of office. The Registration Department is almost wholly manned by the sons of the University. The recent Notification of a Competitive Examination for a certain number of appointments of Deputy Collectors is ample evidence of the treatment that you may expect from Government. In this connection it is no small

satisfaction to be able to say that the example was already set by the enlightened Ruler of the model State of Mysore whom, we all are so justly proud of, and who, in his wisdom, has thrown open the corresponding competitive examination, held in that Province, to Graduates of an Indian University, be they his subjects or not. But though Government, in the interests of public service, acts wisely in employing graduates, you must always bear in mind that the object of the University is not to train a body of men for the public service, or to meet the requirements of the various learned professions, and thus to "label learning with the badge of a selfish use." No system of national culture in which education is not regarded as a social and humane training, that serves to elevate the individual and improve the nation, can ever take root or prosper. The market value of education is not to be despised. But you will be committing a fatal error, if you suppose that the education you receive has no higher than a mere monetary value. The question is often asked, what are the graduates to do if they do not enter the public service, or one of the learned professions? The simple answer is that they must betake themselves to those callings which they would have exercised if they had not received their University education and pursue the same with greater efficiency and success, than they would, without such education. If the University should draw men away from their numerous avocations in life and drive them all into the public service and the legal profession, it would indeed be a great evil to the country. There ample scope for the employment of educated talent in agriculture and in the expanding industry, trade and commerce of the country.

Before proceeding to other topics of my address this evening, let me, once for all, remind you that your success in life, in whatever sphere your lot may be cast, will depend in no small degree upon your bodily vigour and health. It is an encouraging sign of the times that athletics and field sports are beginning to be recognized in our country as an essential part of education. Do not suppose, however, that they are new to India. In some form or other, even as religious observances, physical exercise has always been practised by orthodox Hindus, the fair sex included. And here, let me give you a few hints from experience. Regular physical exercise in some form or other is absolutely necessary for vigour of body and mind. Do not suppose that it can be had only by means of fashionable and costly games. The cheap indigenous sports need not be despised. While avoiding the native quack, guard yourselves against the seductive advertisements of patent medicines which are now deluging the country. In regulating your habits of life, you will not be acting unwisely if you follow the example of such members of your community

as are of active habits and live up to a good old age without ailments. Do not despise any rule of life or observance conducive to health and cheerfulness of mind, simply because it happens to be associated with, and based upon, rules of caste or religion, any more than you would give up inheritance because of its religious basis in the Hindu Law.

Let me remind you, gentlemen, that Higher Education is not the Highest, that the long course of instruction which you have received, and which to-day receives the stamp and recognition of this University, is only preparatory to the great work of self-culture which lies before you. Even the highest University degree is but a basis on which the edifice of knowledge has to be built. The education which you have received will be of little avail to you and to the society to which you belong, unless you deepen and widen the perennial stream of knowledge. The culture of the mind is a life-long task. The study of general literature is a study of all mankind. Of all studies it is perhaps the most ennobling. It would be commonplace to expatiate on the treasures hidden in English Literature. Such of you as may join any learned profession will, I am sure, not neglect the systematic and scientific study of all that pertains to it. And here let me remind you that we are living in a progressive age, and that if you wish to keep yourselves up to the mark, you must be prepared, indeed, for a severe course of study in the profession you choose to enter. In addition to general literature, it is well that you pursue, if only for pleasure and recreation, a special study of some one science or art. Such a course will not only give you an interest beyond the narrow sphere of your vocation and serve to relieve the ennui of life, likely to be engendered by exclusion, but may enable you to contribute your mite to the stock of human knowledge; and also to spend the evening of your life, when you have retired from active service, in enjoyment to yourself and with profit to your countrymen. Many an important scientific discovery has been made by non-experts. To those who complain of want of time, I have only to say that the busiest always find time for more; and that small intervals snatched from even the heaviest pressure of professional business will, in the long run, give ample time for considerable accumulations of knowledge.

Your great enemy in the field of self-education is the ever-growing multitude of Books which, now-a-days, form an important commercial product of human industry, and benefit the writers, oftener, than the readers thereof. It is true that most of them have but an ephemeral existence, and only a few outlive their authors. But the mischief to the reading world is all the same; for, the death of one publication is followed by the birth of a host of new ones, and thus a progressive continuity is kept up in the class of trivial, enervating, and noxious kind of "mere

literary garbage," forming a barrier to all healthy and rational education. Because a man's thoughts appear in print, they cannot be more worthy than the man himself. Because a book has been newly published with an attractive title, and reviewed favorably, in not a few cases by the author himself, in some irresponsible journal, you should not be tempted to buy and read it. Formation of a habit of reading is certainly very commendable; but it ought to be the habit of reading wisely, and not simply for the sake of aimless reading, which is only a refined form of "busy indolence," and makes the reader the butt of Lowell's satire:—

"A reading-machine ever wound up and going

"He mastered whatever was not worth the knowing."

In the wilderness of books, in all departments of knowledge, especially in general literature, you must strictly choose, if you are to benefit by reading. Most books worth reading once, are worth reading twice and oftener, and the master-pieces of literature ought to be read over and over again. They must be loved and made part of yourselves.

Remember that after all reading, is at best a passive self-culture. Your delight must be to think. "Books have often brought some men to knowledge and some men to madness." In order that the individual and the society may be really benefitted, the intellect must be 'translated into human activity,' and you must apply the teaching of the books to the objects around you.

It has been said with truth that man is essentially a speaking animal, and yet how few of us exercise the precious gift of the tongue. In the present system of education there is little scope for the exercise of your conversational powers, and the exclusive life of the students of our public schools and colleges gives them few opportunities of cultivating the power of intelligent conversation in their mother tongue with their relatives, friends and countrymen. And if we look at the matter aright, how incalculable is the loss caused by this neglect of conversational powers. Whether in the domestic or the social circle, or in the wider sphere of citizenship, how are your higher intelligence and culture to be useful, to be productive of any good at all, unless you can effectively wield your mother tongue in oral communication with those for, and amidst whom, you work. Remember also that the great masses of our population can be reached only by the ear, and if you cannot succeed in making yourself heard by them, you can produce no impression on them; and to most of you the opportunities for disseminating knowledge, by means of conversation, are infinitely greater than by writings or lectures. Remember also that all eloquence, strictly speaking, is oral, and if you wish to be the representatives and leaders

of the people, you must work through and by the language which will go home to their hearts. The best teachers of men have been the best speakers. In the course of my experience, I have seldom met an orthodox Hindu or a ryot with whom half an hour's conversation has not benefited us both, or given us some new information or piece of knowledge. There is scarcely a branch of human knowledge in which instruction may not be conveyed by the oral method even more effectively than by means of books. Again, in the family circle, how infinitely valuable must be the gift of the tongue for useful instruction. In the present state of Hindu society, education to the fair sex beyond the elementary course can be best imparted only by oral instruction and conversation. And I cannot too strongly impress upon your minds the duty incumbent on you of devoting some portion of your time to educating, in this manner, the female members of your family. Writing is only a substitute for speaking, though in modern life the latter often appears as the delegate of the former.

This leads me to a few remarks on Style. Remember that style cannot be cultivated independently of ideas, that where these are confused and illogical, there can be no clearness in the language that clothes them. We are under a great disadvantage when we have to express our thoughts in a foreign language, and have therefore to pay greater attention to style than those born to speak it. There are two species of writing, one in which diction follows thought, and the other in which it over-rides it. I should have no hesitation in advising you to cultivate the former. First, look to the vividness, the clearness and the logic of your thoughts, then you will find it comparatively easy to give them an apt expression in words.

"Seek not for words, seek only fact and thought;
"And crowding in, will come the words, unsought."

I do not here under-rate the importance of style. But it must be subordinate to thought. The merit of good style does not consist in obscuring or concealing the writer's thought, or in making it intelligible to the learned few, but in conveying it to as wide a class of readers as possible. This reminds me of the direction which your literary activity sometimes assumes. Not a few are the annotated text-books, compilations and manuals, which have in recent years issued from the Madras Press. These publications constitute, no doubt, a lucrative trade. But let me tell you that all books which pander to the indolence of students, even to the extent of their avoiding the dictionary, and give them the false idea that there is a royal road to knowledge, are pernicious to the cause of sound education.

I shall now proceed to a question of vital importance to the educated community. Many of you will find an opening in the Public Service and I hope that among you there will be some who will distinguish yourselves and rise to the higher appointments now thrown open to natives of proved merit and ability in the Revenue, the Judicial, and the Public Works Departments. It is not necessary to consider here whether the scheme satisfies the reasonable aspirations of natives. Suffice it to say, that four appointments of District Judges and two of District Collectors are within the reach of your ambition, and the number may be increased. Admittedly the moral tone of the native service has vastly improved in late years. But do not suppose that it will take care of itself without any concern on your part. The powers at present conferred on native officials are vastly higher than those exercised by the generation that has passed away. Look, for instance, at the powers now possessed by the Sub-judges and by the numerous class of Divisional and Subordinate Magistrates. Powers yet higher will be wielded by native officials ere long. Remember, gentlemen, that all this means that your responsibilities have vastly increased. The temptations to err and abuse power are great, nay, greater, and more insidious than they ever were. It is, therefore, of the highest importance that you should cultivate betimes virtues that will befit you for your new trials, virtues not only of the amiable kind, highly useful as these must be, but the sterner ones of the strictest integrity and uprightness and force of will and decision of character needed for the most trying of situations. Manifold are the temptations that beset an Indian official, and, however good your general character may be, you may succumb in a weak and unguarded moment unless you have developed in you a strength of will and force of character, and unless too, will I add, you scrupulously avoid the vice of over-stepping your means and running into debt, in anticipation, it may be, of brighter prospects in store. Bear in mind that the confidence reposed in you by Government in throwing open to you some of the highest offices in the realm is indeed very great, and that you have to justify that trust. Remember also that individual officers who rise to high positions hold them in trust for the community to which they belong, and that those who misbehave will be guilty of treason to their country. One man who abuses his power and position, and is punished, does an amount of mischief to the community which twenty honest men cannot repair. Still more pernicious is the seductive example of the man who sins and yet thrives. You must cultivate an *esprit de corps* among you, which will visit with expulsion from the fold all its black sheep.

There is one point in connexion with the public service, the importance of which is not sufficiently realized, and that is, that a public

servant holding a responsible office should not only be honest and upright in fact and truth, but that he should enjoy the public reputation of being what he is. From an administrative point of view, a good reputation is as essential as good character, for, very often no less evil results from one's bad reputation than from one's actual corruption. When one's reputation does not correspond to his real character, he has, in many cases, only to blame himself for it. It arises from a habit of exclusiveness which often goes with misplaced confidence in a privileged few or in some subordinates or from unworthy associations. A little tact and judgment are all that is needed to correct an erroneous popular impression. Open and free intercourse with people easily removes the unfavourable opinions which they may have hastily formed. Accessibility to people and openness to conviction will always help a public officer over difficulties, and secure that popular esteem to which his real character entitles him.

Let me warn you against countenancing the opinion now and then expressed that a person's public character and his private or personal character are two separate entities, and that Government or the public have no concern with an officer's private or personal character. Such a distinction is as mischievous as it is unmeaning. It is difficult to believe for a moment that a person whose personal character is degraded, and who in his relations and dealings with his fellow beings, especially with those less fortunate than himself, is mean and unscrupulous can possibly be an honest-minded official, or command that esteem and confidence of the people which are indispensable to his efficiency and usefulness as a public servant. The ancient Sanskrit saying is "As the king, so the subject." History fully bears out the truth of this saying. The beneficent British Government not only aims at the material prosperity of the country, but aims no less at the social and moral regeneration of its people. This is the higher and the nobler mission of England in India. Those of India's public servants who are not fit to help in this noble task, whose private lives are not in consonance with the high official positions entrusted to them, positions which, in India more than in any other country, secure to them almost the highest social status, justly deserve the strongest condemnation.

The Bureaucratic system in this country is not calculated to widen your sympathies or enlarge your views. An administrator of a Taluk, Division, or District is often apt to fancy that he is a king in miniature and as such "can do no wrong," and that any person criticising his official acts in the press or elsewhere is guilty of disloyalty or disaffection to the British Throne. When you rise to any such position bear in mind that you are, as your designation significantly denotes, only a

servant of the Public, and that it is your duty to consult always the interests of the people and promote their good and not domineer over them as their lord.

The Revenue department of the State was the one in which native talent first distinguished itself. The Judicial now seems chiefly to attract the best of our educated men, and offers them high prizes, so much so indeed, that it seems to be taken for granted that the Bench and the Bar are better suited for native talent than the executive branches of the administration. From the earliest times in Indian History, down to the days of the late Madava Row and Rangacharlu, of this Presidency, there is no branch of administration in which native talent has been so conspicuously useful and distinguished as Revenue and Finance. In the interests of the public the advancement of natives to high offices in the Executive is no less important than their advancement in the Judicial branch of the Service. It would be a matter for regret, if the rising generation of graduates, with such bright prospects as they have before them, should regard the Revenue Department, as in any wise inferior to the Judicial. Such of you as may join the Executive service will have far greater scope for being useful to your countrymen than generally falls to the lot of those occupying high positions on the Bench. It is your duty to dispel the erroneous notion that you may not be equal to the highest exigencies of the Revenue administration. Under existing laws and circumstances, there is an intimate connexion between the two branches of the service, and the best Judge or the best Collector will be one who has had a good training in both Executive and Judicial work. Most of those now entering the Revenue service seem to content themselves with a mere acquaintance of Revenue Regulations, Acts and Standing Orders, prescribed for the Revenue tests, without caring to study the many intricate questions which are connected with the Revenue and general administration of the country or their history. Those of you who may rise to the higher offices of trust and responsibility will owe them no less to your *nationality* than to your merit. Despise not the people whose representatives you are, nor lose touch with them. But let your endeavour be to study their thought, feelings and sentiments with a sympathetic spirit, and to promote their welfare to the best of your opportunities. If there be any who in the loftiness of his official position looks down upon, and treats his countrymen as an inferior order of beings, the country will not be proud of him, or gratefully appreciate the policy of the British Government in giving a larger and more responsible share to educated natives in the administration of their country.

Social Reform, which is now powerfully exercising the thought and action of our countrymen, is unquestionably a most useful field of labor. And what is social reform, but the improvement of ourselves, our homes, and the society in which we live? Society acts on the individual, and is acted on by him. Remember, gentlemen, that in this all-important and never-ending task, you have to proceed wisely and cautiously. "Moderation is like the silken string passing through the pearl of virtues." No society has ever improved by a revolution. Revolution may bring about a social dissolution, but cannot construct. In our zeal for reform, and in the vehemence of our individual convictions, we are apt to overstep the bounds of wisdom and prudence, and destroy when we mean to reform. Let us not, therefore, forget the importance of the society of which we are but units. You may condemn in as strong terms as you choose, the masses of our people as illiterate and blind; but there is no despising their power for good or evil. If the reform you aim at is to be real and lasting, you must take the community with you; and how can this be done unless you first study their opinions, prejudices, their strength and weakness, so as gradually to win them over to what you hold and believe to be right? One of the greatest impediments to social reform is the great gulf of feeling and thought, that now separates the educated from the so-called uneducated class. And here we have to correct ourselves of a fatal error that has crept into fashionable use by the conventional sense in which we use the word "educated" to designate only those who have received English education, as if all our countrymen, ignorant of English, including the best cultured, in oriental literature and philosophy, are to be classed as uneducated. Burke observes: "What is education of the generality of the world? Reading a parcel of books? No. Restraint and discipline, examples of virtue and justice: these form the education." The true patriot and reformer is not the man who despises all who are beyond the small coterie to which he may belong, but he who with openness of soul and heart is prepared to instruct and be instructed. Let me remind you again that your first endeavour must be to secure the sympathy of those for whose benefit you labor. As truly observed by Mr. Grigg, in his address to the graduates last year: "No country can flourish with an academic body which is out of sympathy with the people from which it springs." It is, of course, open to those who wish to secede from the Hindu community to do so, and not actively concern themselves with its social advancement or to claim its privileges. The changes that have taken place in popular opinions and convictions during the last quarter of a century, and the reforms that have sprung out of them, are, by no means, so inconsiderable as we are apt to imagine.

To me they seem sufficiently encouraging. And the conviction that works in most of our minds that we have done but little as yet, and ought to do more, augurs well for the future of our social reform. I do not believe that the orthodox Hindu community is so blind and perverse as to be incapable of new impressions and rational ideas. On the other hand, they seem to me to realize fully the rising importance and influence of the English educated portion of the community, and to be willing too co-operate with them, provided these will meet them on a common platform prepared to convince and be convinced. The Hindu social institutions of the past are susceptible, as experience shows, of progressive re-adaptations, and are not so inelastic or crystallized as they are sometimes represented to be. Bear in mind that only some steps in advance are possible at a given time, and that errors must be gradually displaced.

The ruling convictions of mankind are often swayed by feeling, imagination, usage and tradition more than by logic and reason. If we examine the sources of popular morality we shall find that religious sentiment, cultivated moral sense, public opinion or positive law, exercises influence, in varying degrees, on men's character and actions. The sphere of positive law is limited. In modern Hindu society, for obvious reasons, public opinion will have to be relied on as the most efficient regulator of the actions of the individual. It must, therefore, be the constant endeavour of all true reformers to create a sound and healthy public opinion in the community to which they belong, an opinion moulded out of what is best in the literature, philosophy and religion of the East and of the West. The influence of such public opinion on the individual and the community cannot be over-rated. It will be the duty of every one of you to defer to it, and demonstrate by your example the wholesome influence which it ought to exercise. In all questions of social reform, as in politics, we have to look to the practicability, in the near future, of the change proposed and, not unfrequently, have we to choose between two evils. Do not despise small reforms for which Society may be prepared, simply because they do not satisfy your ambition. On the other hand, reforms which are small in themselves, but are regarded as revolutionary by the people, are not worth your attempt. Let not your reasoning faculty and critical mind be exercised in scanning manners and etiquette by mistaking them for morals. 'Good manners are made up of petty sacrifices.' There is a wide scope for individual action in several matters of importance in which reforms, conducive to the welfare of the Society, can, with a certain degree of firmness of will and decision of character, be accomplished without doing any violence to Religion or Social organisation. The progress made in

this direction, we must confess, has, as yet, been but little. We ought to be able to effect it without seeking the interference of the Legislature in concerns which in all civilised countries are not generally attempted to be regulated by Positive Law. Do not neglect an existing institution which may be utilised to the greatest public good. Let your endeavour always be to arrest its decay and extinction and to improve upon and refine it.

Lastly, I wish to impress on you the inestimable value of cultivating that much neglected virtue, Intellectual Honesty and Candour. Whether you are engaged in the field of social reform, or in the pursuit of knowledge, or in the task of imparting it, and whatever your avocation in life may be, whether to administer justice or to conduct a journal, the importance to you of this virtue cannot be over-rated. Never pretend to know, or delude yourself into the belief that you know, what you do not know.

You are expected and therefore presumed to know much. You are naturally averse to repel such presumption by confessing ignorance. People have recourse to a thousand devices to conceal their ignorance, and thereby often neglect opportunities for dispelling the same. Do not try to communicate to another, knowledge which you do not possess, or to persuade and convince him of what you do not believe. Remember that what is consciously done at first, settles ere long unconsciously into a vicious habit, and it will result in ignorance of your own ignorance. It is a fatal vice and strikes at the root of all honest work. Save yourselves from it, betimes, lest it should grow too strong to be overcome. The man who has the greatest knowledge is one who knows and feels how little he knows, how much more he has yet to know, and how great his ignorance is.

TO GRADUATES IN LAW:

You will naturally expect me to say something special to you as I have long been connected with the legal profession. The knowledge of law, which has enabled you to take the degrees you have this day attained, is very considerable, and I have no doubt it will stand you in good stead whatever may be your sphere of life. Such of you as may join the bar or the judicial service should not be carried away with the notion that a knowledge of law alone will serve you in the discharge of your respective duties. In the great majority of cases, your duty will be to sift the evidence, in view to arrive at the truth. Questions of law arise only in a small percentage of cases, and in most of them the facts have to be ascertained before the law can be applied; and this is specially so in criminal cases.

While the integrity of the native judiciary and of the bar, and the knowledge of law commanded by both, have, within the last few years, vastly improved, it is to be regretted that there has been no corresponding improvement in the direction of handling questions of fact. The much-neglected art of examining witnesses should be cultivated; and for this purpose you must have not only an insight into human nature, but a thorough familiarity with the intricacies of your various religious, communal and caste institutions, and of land tenures and with the peculiar habits and usages of the different sections of the people.

Sometimes you meet with a judge who says that oral evidence in this country is worthless, and that he, therefore, rejects it on both sides. He then decides the case, basing his judgment on a speculation of probabilities. This is certainly a most dangerous doctrine and strikes at the very root of the administration of justice; for, in most cases, you have no other means of arriving at the truth. It is because much ability, skill and experience are required in scrutinizing evidence, that trained judges and learned professional men are, at a great cost, employed in the administration of justice, and not simply because questions of law may have occasionally to be decided, which, if they go wrong in the court of first instance, may more easily be corrected than questions of fact in the Court of Appeal.

More trustworthy evidence, than is now generally available, will be forthcoming, if witnesses receive greater consideration and are subjected to a less bullying kind of cross-examination. This style of cross-examination is the least effective in testing the truth of the evidence or the veracity of the witness, and is calculated only to irritate, insult and confound the witness. The object alone is no doubt, in many cases, the one aimed at. When a witness appears in court he is treated as a partisan in the case, and not as a citizen come to discharge his public duty, and, unless he happens to be a public servant, his convenience is the one that is the least cared for; and he must be prepared for the risk of his evidence being denounced, in unnecessarily strong and violent language, not only by the advocate, but sometimes by the judge also. It is these and the like causes that operate on the minds of respectable persons, to try, if possible, to avoid being cited as witnesses, and if cited, to evade giving evidence. Until there is a decided change for the better in the treatment of witnesses, and the art of examination and cross-examination is better attended to and cultivated, there will be no improvement in the quality of the oral evidence secured in courts, especially in criminal cases. Whether you become a judge or an advocate, you should do the utmost that may lie in your power to effect such improvement.

A practitioner should take full instructions from his client and give him ample time for the purpose; but he must remember that the responsibility of conducting the case rests solely with him; and that he should use his own independent judgment and not substitute the client's for his; and when the result goes wrong, by reason of the latter, he should not shift the responsibility on to his client's shoulders, by saying the was a mere mouth-piece.

You must not identify yourself with your client. The anxiety of the client is centred solely in the *result* of the case, but yours ought to be in the *conduct* thereof. The Indian client is, generally, a very reasonable being. If he wins the case, he will invariably feel grateful to you; but if he loses, he will ascribe it to his ill-luck, and not blame you, unless he thinks it was due to your neglect or mismanagement. Be a zealous and earnest Advocate: but allow not your advocacy to be hampered by your anxiety about the result. I say this no less in the interest of your client than in your own. A suitor has a great advantage in securing the zealous and earnest advocacy of one who is perfectly unconcerned about the result. This is really the idea that is contained in the saying "A man who is his own lawyer hath a fool for his client;" which, in other words, is the same as, a client, who is his own lawyer as a fool for his lawyer.

You must go to Court prepared with your cases, and not, as is often the case in the Mofussil, conduct the case as best you can, from the instructions which you may be able to get from your client or his agent, in open court, during the trial. Without previous preparation you can have no plan, and the judge cannot follow you. The consequence is that, very often, the trial of a case, including the argument, extending over several days, is gone through as a mechanical process. Judgment is reserved, not because the judge has an intelligent doubt on a question of law or fact involved in the case, but because he has to understand the case as best he can, and analyse and weigh the evidence after calmly going through the whole record. This deprives suitors of the inestimable advantages of a judicial trial, and is but an apology for the English system.

The moral tone of the native Bar has decidedly improved, and suitors do not avoid lawyers who are not prepared to feed them with hopes and anticipate success for them. The most successful advocates hold out the least hope of their winning the case. You should not, however, go to the other extreme, which sometimes happens. The client is entitled to the benefit of the Judge's judgment, and you should not take the responsibility of substituting yours for his, which, differing from yours, may, on a point of doubt, be favourable to your client. It

may be that you have an overweening confidence in the correctness of your own opinion, which, though adverse to your client, is wrong; or, it may be, you are right, and the Judge wrong.

You should not misunderstand me as underrating the importance of improving your knowledge of law by pursuing a scientific study thereof. A verdict on a question of fact affects, as a general rule, only the merits of the particular case; but a decision on a point of law has a much wider operation for good or evil, according as it is sound or otherwise. Time forbids my offering further remarks touching the study of Law and the interest you should take in Indian Legislation and Case-Law.

As to the annual accessions to the Bar, it is no wonder that it should attract so many, year after year. This is so in all civilized countries. With greater attention on your part to the work of a solicitor, I anticipate that, long, there will be a large opening to the legal profession; that various conveyancing work in the country will be entrusted to the landed aristocracy and important families and corresponding vakils for advising them. Instead of the legal profession being resorted to in India, as it now generally is, for the conduct of litigation, it will then be also employed in the more genial and useful, and on the whole not the less remunerative, work of preventing litigation.

The establishment of an Institute of Law, or of a Law Society in Madras, is, I think, extremely desirable. The object is to maintain a high standard of professional conduct, bring its influence to bear upon every member of the profession, and enable him to seek for and obtain advice, as to the rule of professional conduct which should govern and guide him in a matter of some difficulty. The three branches of the legal profession in the High Court should be strongly represented in it, and its duty will be to bring notice of the Court cases of professional misconduct, and also to report to the Court, on cases which, as a rule, should, in the first instance, be referred to it for investigation. Such an institution exists in England, and I see that a Law Society exists in Bombay also. Both in the interests of the profession, as a body, and in the interests of those members who scrupulously adhere to rules of professional conduct, the founding of such an institution cannot long be postponed.

Graduates of the year,—I have endeavoured in the limited time at my disposal and in such feeble words as I can command, to point out to you and to impress upon your minds, what this University expects of you all. No words of mine can be half so eloquent as the solemn ceremony of Investiture through which you have gone to-day in the presence

two per annum, the power of appointing any additional Fellows, if necessary, in the customary manner will, of course, be retained by Government.

7. The Senate of the University will now be requested if it has no objection, to arrange for the holding of an election as soon as may be in accordance with the conditions set out above.

8. Voters residing in Madras should, Government considers, record their votes at the Senate House, but those residing elsewhere will be permitted to fill up the voting paper in the presence of a Magistrate (not being a Village Magistrate), who will authenticate it with his signature. The necessary instructions will be issued in the Judicial Department.

HOW SCHOOL GLOBES ARE MADE.

[A portion of a lecture delivered at the Teachers' Conference, Maharaja's College, Pudukota, by S. Radakrishna Aiyar, B.A.]

The map of the world such as we see drawn on School Globes is the product of the labour of many centuries and of many travellers and navigators. Rome was not built in a day, and the same thing may be said of maps. Till about the beginning of the 16th century, nothing was known in Europe of what is now called the New World, and but little was known of many portions of the Old World. Even of the places that were known, the positions were not correctly shown on maps, as accurate methods of determining the latitudes and longitudes of places were not available for want of proper mathematical instruments for observations of heavenly bodies. It has thus happened that more has been done for making our maps full and accurate in the 18th and the 19th century than in all the centuries before. In our own days hosts of travellers have penetrated into the remotest corners of the world and have returned with the latitudes and longitudes of important places—of boundaries of countries, of the courses of rivers, of the lie of mountains, &c., with much other interesting geographical information. Within the last twenty years, as many of us know, Henry M. Stanley undertook two remarkable expeditions* into the depths of Central Africa, and has supplied geographers

* It was in the first of these expeditions that Stanley sailed down the *Lualaba* and proved it to be the Congo, which thus takes rank among the greatest rivers of the world, being about 3,000 miles in length. "This exploit, the greatest probably since Columbus crossed the Atlantic and Magellan circumnavigated the Globe is distinctly epoch-making, worthily closing the greatest and one of the grandest chapters in the glorious record of geographical exploration." *Relics (The Earth)*

and map-makers with a number of points in the heart of the "Dark Continent," such as

Mount Ruwenzori, 0°30' lat. N., 30° long. E.

Further, surveys of many countries conducted by their respective Governments have furnished geographers with much valuable and accurate knowledge of every portion of these countries. The information thus accumulated by travellers, navigators, and surveyors has been eagerly utilised by cartographers, and the result is the present map of the world. Though the blank spaces on our maps have thus been gradually but considerably reduced, many large tracts of land such as the Thibetan tableland and various parts of Central and Western Australia yet remain unexplored.

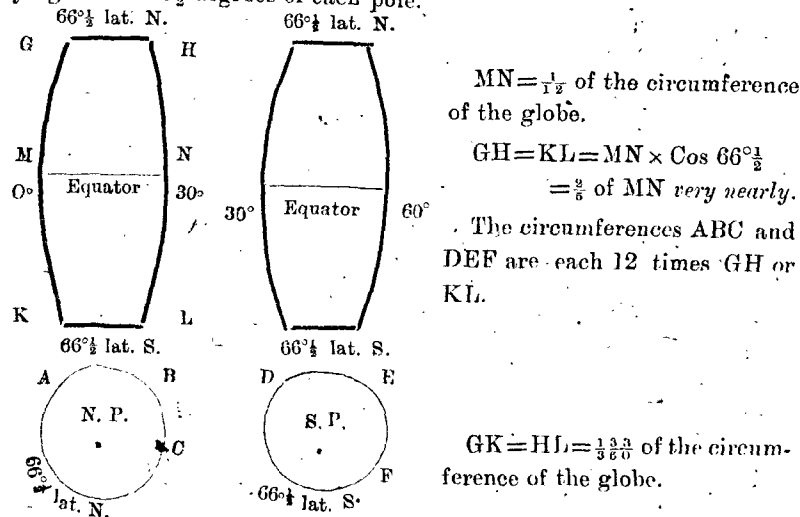
We shall now consider how our School Globes are made. Making an ordinary Globe is a work that requires great care and tact.

A hollow wooden or iron sphere is first formed with wires projecting at opposite ends to indicate the poles. Then strips of damp paper are spread all over it; other strips of paper soaked in paste are laid over them, then other strips, and so on; till the total thickness of the layers is about $\frac{1}{8}$ of an inch. When completely dry, the pasteboard envelope is cut in the line of the (future) equator, and is separated from the mould in two hemispheres. These are fastened by nails to the two ends of a wooden rod exactly equal in length to the diameter of the globe, and the edges of the hemispheres are glued together so that we get a pasteboard sphere. Two wires projecting from the two ends of the wooden rod penetrate the pasteboard, and form the poles of the globe. The pasteboard is then coated, six or more times over, with whiting, glue, and oil, until a considerable substance has been laid on, each layer being dried before the next is applied. At this stage of the manufacture, any irregularity on the surface of the globe is remedied by working a metal semi-circle round and round the sphere, till the surface is made quite smooth.

† The earliest map that deserves the name was constructed by Anaximander of Miletus in Asia Minor (610 B.C. - 547 B.C.); but this did not extend much beyond the parts of Europe, Asia, and Africa, about the Mediterranean Sea. The construction of maps on a scientific basis—that is, with the lines of latitude and longitude drawn on them by fixed principles—was first attempted by Hipparchus (150 B.C.), a celebrated Greek astronomer, who has therefore been called "the father of true geography." Ptolemy of Alexandria (150 A.D.), another celebrated astronomer and geographer, carried into full practice the method of Hipparchus, and had a series of 26 maps constructed under his superintendence to illustrate his *Universal Geography*. "This book was accepted as a text book, and maintained that position during the Middle Ages until the 15th century, when the rapid progress of maritime discovery caused it to be superseded."

The surface is then marked, by means of a beam-compass, with lines to represent the circles of latitude and longitude.

Meanwhile the engraver is at work to produce the geographical delineation which is to cover the pasteboard globe. For a globe of a moderate size, 12 lens-shaped *gares* or strips of paper are taken, each representing 30° of longitude and 133° of latitude with the Equator in the middle, together with two circular pieces to represent the regions lying within $23\frac{1}{2}$ degrees of each pole.



It is only by this process of taking a number of strips that the surface of the globe can be covered without overlapping or vacuities, since a single sheet of paper can never be fitted accurately to the surface of a sphere. These pieces, each of which contains a map of a portion of the earth are placed in a pile in their proper order and are pasted and laid on with great care, the lines of latitude and longitude marked on the globe being taken as guides. Much skill is needed to effect the junction of the edges without overlapping. The globe is then coloured to mark the divisions of land and water, and is next coated with several layers of strong varnish.

The model of the globe being now complete, our next business is to get it mounted. For this purpose, the globe is suspended in a brass-ring of somewhat greater diameter, being fitted into it by means of the two wires at the two poles. The brass-ring is called the brass *meridian*, as it becomes a meridian to every point on the surface of the globe, as it revolves on its axis. On one of the two halves into which the brass meridian is divided by the two poles, degrees are marked from the Equator to the poles, and on the other half from the pole to the Equator.

The brass-ring is then let into and fixed in a horizontal ring of wood supported on a stand, which wooden ring has two grooves on opposite sides of it for the brass-ring to work in. The upper part of this wooden ring is covered with a ring of paper which is divided by several concentric circles. One of these is numbered in degrees from the East and West points towards the North and South to show the distance of places on the globe from the East or West point of the horizon. The points of the compass are shown on the circumference of another circle.*

S. RADAKRISHNA AIYAR, B.A.

OUR COMPETITIONS.

Only one correspondent has attempted to identify the *Patchwork Verses* published in the Journal for February. His attempt, however, is a remarkably successful one as will be seen from the list appended, and he is fully entitled to his year's subscription to the Journal.

PATCH WORK VERSES IDENTIFIED.

(See the Journal for February, p. 103.)

1. Sir W. Scott ... "Song of Meg Merrilies at the Birth of the Infant"—in "Guy Mannering."
2. Mrs. Browning ... "Sleep."
3. Tennyson ... "The Brook."
4. Gray ... "Elegy in a Country Church-yard."

* The first globe of which we have any mention was made by Crates of Mallus, in Cilicia, a Greek geographer (2nd century B.C.). Ptolemy is said to have used a large brazen globe which afterwards fell into the hands of the Saracens, who had also a silver globe 'of fabulous price'. The earliest globe made in England was that by Molyneux in 1592. The greatest globe that was ever made was that of Langlois of Paris (1825) with a diameter of 120 feet, the greatest globe made in England being Wyld's 'great globe' with a diameter of 60 ft. 4 inches. The latter globe was exhibited in Leicester Square, London, in 1851-61, and "all parents and schoolmasters considered it their duty to shew it to children." Globes of India-rubber and of thin paper to be inflated and suspended in a school-room have also been made. Bett's small paper-globes are so constructed as to fold up conveniently into very small size, when not in use. Relief-globes are, "with hardly an exception, failures, the relative heights being grossly exaggerated and conveying utterly false notions of the true configuration of the ground. This cannot but be the result, where the area represented is vast and the scale of representation small." School-globes are generally 12 inches in diameter. Globes of 6 inch diameter which are described as 'marvels of excellence and cheapness' can be had for such a low price as 5s. There is therefore no excuse for any school to be without a globe which, to use the words of Dr. Geikie, is "an indispensable instrument in geographical education."

5. Pope ... "Messiah," a Sacred Eclogue.
6. John Mayne ... "Burd Helen" or "Helen of Kirconnel"—Scottish Ballad.
7. John Poole ... "Paul Pry,"—Comedy.
8. J. R. Lowell ... "The Vision of Sir Launfal," Prelude to Part I.
9.
10. Longfellow ... Prelude to "Voices of the Night."
11. Thomas Hood ... "Ruth."
12.
13. Longfellow ... "Unseen Friends."
14. Leigh Hunt ... "Abou Ben Adhem."
15. N. P. Willis ... "David's Lament for Absalom."
16.
17. W. E. Aytoun ... "Lays of the Scottish Cavaliers."
18. O. W. Holmes ... "The one-horse Shay" in "Autocrat of the Breakfast Table."
19.
20.
21. J. G. Whittier ... "Barbara Frietchi."
22. Wordsworth ... "Goody Blake and Harry Gill."
23. Campbell ... "Exile of Erin."
24. Scott ... "Lady of the Lake."
25. Hemans ... "The Child's First Grief."
26.
27.

U. BALAKRISHNAN NAIR, —

II. Class, Madras Presidency College.

A large number of Paraphrases have been received and the result will be announced in the Journal for May. We call the attention of intending contributors to the rules and regulations published in our March number. A large number of papers have been rejected for various reasons. Some were insufficiently stamped and so refused. Many were late. A large number were improperly addressed. Some were addressed to the Principal, Pachaiyappa's College, some to the Editor personally, some had not Paraphrase written on the outside. Some mis-spelt Pachaiyappa and other words. Strict attention must be paid to the directions or exclusion from the competition follows.

The competition for this month will be for a Map. Competitors are invited to send a *Physical and Railway Map of India and Burmah* showing the chief Physical features and the Railways. Political and

administrative divisions should not be shown and the towns selected should be important Railway termini or junctions, or Sea Ports.

Everything on the paper must be the competitor's own work. No prepared projections will be admissible. Prize and conditions as before, but *Map* should be written on the cover instead of *Paraphrase*. Also, as a map takes some time to prepare and as, owing to the Easter holidays and consequent closing of the Press, the Journal is a few days late this month, the time for sending in maps will be extended to 10th May. None will be accepted after that date.

MATHEMATICAL PAGES.

(Conducted by Rai Bahadur P. Ranganadam Mudaliyar, M.A.)

(All communications for this Section should have the word *Mathematics* on the cover, and be sent in before the last day of the month.)

QUESTIONS FOR SOLUTION.

1. If M, N, P, Q are the mid-points of the sides AB, BC, CD, DA of a square, prove that the lines AN, BP, CQ, DM divide the square into parts which can be made up into five equal squares.

2. DEF, D'E'F' are in-triangles of ABC (D, D' on BC; E, E' on CA; F, F' on AB) which have their sides parallel to the bisectors of the angles of ABC. Find the areas of the triangles and show that DD'E'F'F' is an equilateral hexagon, having each side equal to $abc/\Sigma(ab)$.

3. Solve the equations:—

$$x^2 + a^2 = y^2 + b^2 = (x-y)^2 + (a-b)^2.$$

4. Solve: $\frac{1}{x} + \frac{1}{y-z} = \frac{1}{b+c}; \frac{1}{y} + \frac{1}{z-x} = \frac{1}{b}$

$$\frac{1}{z} + \frac{1}{x-y} = \frac{1}{c}$$

5. If $A+B+C=180^\circ$, $\cos^2 A + \cos^2 B + 2 \cos A \cos B \cos C$ is a perfect square.

6. If $\sin^3 \theta = \sin(A-\theta) \sin(B-\theta) \sin(C-\theta)$, where A, B, C are the angles of a triangle, prove that $\cot \theta = \Sigma (\cot A)$; and $\operatorname{Cosec}^2 \theta = \Sigma (\operatorname{Cosec}^2 A)$.

7. Expand $\sin nx$ in powers of $\sin x$, n being any odd number.

8. The chord of a segment of a circle measures 120 ft., the versed sine 12 ft., and the arc 156 ft. Find the area of the segment.

9. A band passes round two wheels and crosses between them, and is kept stretched; if the distance between the centres be a , the sum of their diameters $2c$, shew that the length of the band will be

$$2 \left\{ \sqrt{a^2 - c^2} + c \left(\pi - \cos^{-1} \frac{c}{a} \right) \right\}.$$

10. A point P is taken in the bisector of the angle A of a triangle ABC. Shew that when the difference between the angles ABP, ACP is a maximum, $AC \sin^2 ACP = AB \sin^2 ABP$.

11. A seconds pendulum at one place when taken to another place loses n minutes a day. It is made to keep correct time by shortening it by a inches. Find the length of the pendulum.

12. A ray enters a prism of quadrilateral section in a principal plane, the angle of incidence being ϕ , and after reflexion at three sides in order emerges from the one at which it entered, making an angle 2ϕ with the original direction of the ray. Shew that the section of the prism by a principal plane is inscribable in a circle.

13. If α, β, γ be the roots of the equation, $x^3 + px - r = 0$, find the value of $\Sigma (\alpha^4)$ and $\Sigma (\beta^4 \gamma^4)$ and shew that

$$\alpha^3 \beta + \beta^3 \gamma + \gamma^3 \alpha = \alpha^3 \gamma + \beta^3 + \gamma^3 \beta = -p^2.$$

P. R.

REVIEWS AND NOTICES OF BOOKS.

LONGMANS' JUNIOR SCHOOL MENSURATION, by W. S. Beard. London. Price, 1s.

This work has been prepared to meet the requirements of the English University Local Examinations, a purpose to which it seems fairly adapted. But it is doubtful whether it is judicious to attempt the subject of mensuration upon the basis of so small an amount of mathematical knowledge as is assumed as a preliminary in this book. There can be no attempt made to *prove* or *arrive at* formulae which are simply to be committed to memory; and then some very simple examples can be worked out by the aid of ordinary arithmetic. This certainly increases the pupil's power of realising and dealing with arithmetical quantities, but there is very little mensuration about it. With these reservations, the book is written with accuracy and is fairly suitable for Elementary Technical Examinations. A little more care might have been spent in getting suitable definitions. The very first statement in the book is open to serious objection with regard to its wording. The examples are copious and fairly well chosen, and, on the whole, the book might prove useful to very junior classes, though with the excellent little manual of Mr. Pearce already in the field, there seems very little reason for its publication by Messrs. Longmans.

A MANUAL OF CURRENT SHORTHAND, by Henry Sweet: Oxford, Clarendon Press. Price, 4s. 6d.

Any work by Dr. Sweet must always command attention, even though not in the department of Philology. The author in his preface gives as his reason for adding to the numerous systems of shorthand already in vogue that "all these sacrifice efficiency to brevity, the

brevity being often only apparent." This is a serious charge to bring against the older systems, but the author goes on to emphasize his position in a preface of 16½ pages, in which he advocates the use of the *script* or current styles of shorthand as superior to the geometric. His advocacy of his own device leads the learned author into the rather childish play on words of talking of the popular *Pitfall* system.

It remains to be seen whether, allowing for the natural and proverbial belief in the swan-like nature of one's own geese, the system possesses the marked advantages claimed for it by its inventor. We think it does fairly well, since Dr. Sweet modestly declares that he is ignorant of the requirements of modern reporting, and therefore cannot say how far his current system meets those requirements. We may confidently assure the author that it does not meet them at all. Neither for speed nor for ease of contraction is this system suited to the reporters' needs. But it is well suited for such purposes as taking notes of books, and of lectures or addresses delivered at a medium rate; and as far as we can see it is not liable to the difficulties of interpretation into longhand which are met with in the Pitman and similar systems. A manuscript might therefore be safely left for any length of time before transcribing. This would obviously be very serviceable to an author; still, even with this claim on the attention of shorthand writers, it is very improbable that for any purpose requiring high speed, the cursive system will ever displace the geometric; even if the former is in the revised phonetic style, which the author recommends as being more adapted to brevity than the orthographic variety of his method.

To those who are desirous of using shorthand for office or press purposes we would say—"Stick to your Pitman"; but to the author or student to whom speed is not so essential as absolute accuracy and ease of transcription, the *current* system has many recommendations.

THE ALGEBRA OF COPLANAR VECTORS AND TRIGONOMETRY by R. B. Hayward, M. A., F. R. S., London, Macmillan & Co.

We have read this book with very great pleasure and heartily recommend it to all who care for logical accuracy in the development of Mathematical principles. Mr. Hayward has long been known as a veteran Mathematician and as the President and guiding spirit of the Association for the Improvement of Geometrical Teaching in England. His *Solid Geometry* published two years ago was a model of a book on Geometry. The *Algebra of Vectors* now before us is equally good and is fully worthy of being dedicated to the memory of that great man, do

me a sum', the late Professor DeMorgan of London. The science of Algebra has entirely changed its scope since the time when Newton delivered his lectures at Cambridge and published them under the title of *Arithmetica Universalis*. It is from this point of view of generalized Arithmetic that the subject is still treated in elementary-works on Algebra. French books on Algebra contain a great deal of the Differential Calculus. When Prof. Chrystal's two volumes appeared, Mathematicians who were at first surprised that his Algebra embraced so much of Trigonometry and other subjects, expressed a regret that he had not included the *Algebra of Vectors*. The modern developments take in all organized systems of symbols combined according to subject matter, of which number or quantity constitutes but one element, or in which this element is entirely absent, and the letters and symbols denote *operations* or *forms* only. It is with one of these developments, in which the laws and resulting formulæ are those of ordinary Algebra, but the meanings of the symbols are extended by the introduction of a new element so that no uninterpretable forms or so-called *impossible* or *imaginary* quantities remain, that this treatise is concerned. The method adopted is to start with the notion of a *vector*; from this to deduce the laws of combination of vectors in the same plane and then to show, among other results, that Trigonometry emerges as an immediate consequence and thus becomes included in this branch of Algebra. The elementary magnitudes of Dynamics, such as velocity, acceleration, force (acting at a point), are also truly *vector magnitudes* and are treated as such by Clifford in his *Dynamic* and also by Minchin in his second volume of *Statics*. Both Kelland and Tait apply the method of vectors to the solution of many interesting *geometrical* problems.

For the treatment of *vector magnitudes* in all their generality, and other magnitudes transcending these in complexity, special Algebras are required and the reader has to consult the classical works of Hamilton and Clifford. The book is divided into twelve chapters and contains a great deal more matter than is found in books on Higher Trigonometry. Most of it, however, has now become the common property of Mathematicians. The treatment, for example of hyperbolic functions, or *ex-circular functions* as Mr. Hayward calls them, is almost on the same lines as that of Greenhill, and many of the theorems are found both in Casey and Chrystal. But the geometrical illustrations are throughout very copious and the book is full of elegant touches and happy turns of expression.

THE CHURCH ORGAN AND HARMONIUM; by the Rev. J. T. Lawrence, M.A.: Madras, S. P. C. K. Press.

This useful pamphlet ought to be in the hands of all who are interested in the purchase, preservation, or use of harmoniums and organs. Within a small compass it gives a clear notion of the peculiarities in the construction of these instruments with explanations, specially needful in India, that will make ordinary small repairs easy; as well as a number of useful suggestions on other points such as their position in a building, use of the stops, choice of music, and so on.

One of the most useful parts of Mr. Lawrence's *brochure* is his exhaustive discussion of the respective merits of the 'American Organ' and the Harmonium. When an instrument has to be purchased for a church or room the persons responsible for the selection are not always acquainted with the main points of difference between these two classes of instruments and are very apt to be led away by the showy appearance of the pretentious American production with its imposing list of polysyllabic stops. They are apt to forget that in a harmonium the cost depends upon the internal, and in an American organ on the external part of the instrument. It is a prevailing fallacy that more 'expression' can be got out of the American organ than the harmonium, but, as Mr. Lawrence shows, in the hands of a good player the harmonium is of far greater capacity in this particular. If those who use harmoniums would follow Mr. Lawrence's advice and practise daily, they would soon acquire that control over the bellows which some amateurs find difficult at first, and would also learn how far superior the effects thus produced are to the somewhat staggery and mechanical ones so easily drawn from the American organ, and which seem to form one of its chief recommendations in the eyes of so many. Another point well illustrated in this pamphlet is the position of the instrument, and we are glad to see a protest against the too common modern practice of putting the organ behind the choir in the chancel of the church.

A METHOD OF TEACHING ENGLISH for Secondary Schools, by James Gow, M.A., Litt. D. Part I. Grammar chiefly: London, MacMillan & Co., 1892.

This book, its author tells us, is intended as a course of English lessons for the Junior Forms of Secondary Schools, and for children who already speak and write English fairly well and are beginning to learn another language. 'The higher work of Schools,' observes Mr. Gow, "is perpetually hampered by the neglect of English in the lower classes"—a remark very true of Schools at home, and one with which our own sad experience leads us heartily to concur. The author

has set to work to provide a remedy for the disease, and in this great work we think that, if he is followed, he points out a safe way.

Mr. Gow has begun, "as the nature of English requires, with the sentence. The language has practically no accident, and uses the same word as several parts of speech; hence, usually, we cannot parse a word without first seeing it in a sentence, and cannot parse it then without making a mental analysis of the sentence. It was essential therefore to deal with analysis first, and proceed to parsing afterwards." Here we are wholly at one with the author except in so far as he restricts his remarks about the sentence to English. The sentence is now commonly regarded by the most eminent comparative philologists as the unit of speech, not merely in the more analytical languages like English, but in all languages, no matter how inflexional soever they may be; and any really thorough and sound classification of languages should take the sentence, and not the individual word, as its basis.

The bulk of the book is good, new, and valuable; while at the end will be found some excellent notes for the Teacher. Section I is the only one of the five sections to which we take exception. This section deals with 'spelling and pronunciation'; and, considering the low standard of the lads for whom it is written, it seems little short of ludicrous affectation to treat in it of 'glossic spelling', and of 'Anglo-Saxon and Chaucerian spelling and pronunciation'. With this exception, we regard the book as admirably adapted for the object it has in view, but *only among boys whose Vernacular is English*. We do not deem the book suitable for the Upper or Lower Secondary classes of our Indian Schools; but we are glad to be able to recommend the method to the notice of High and Middle School teachers. Perhaps we may expect some day to see done for the Vernaculars of India what Mr. Gow has here done so well for English teaching. It is needless to say that the book is printed in good clear type, and is in Messrs. MacMillan's best style.

TENNYSON. THE MARRIAGE OF GERAINT. GERAINT AND ENID. With Introduction and Notes by G. C. Macaulay, M.A., formerly Fellow of Trinity College, Cambridge: London, MacMillan and Co., 1892. Price 2s. 6d.

Mr. Macaulay informs us in his preface that this edition of *The Marriage of Geraint* and *Geraint and Enid* is intended to be uniform with *The Coming of Arthur* and *The Passing of Arthur* by Mr. Rowe, and with his own edition of *Gareth and Lynette*. With the latter it is certainly uniform: with the former, certainly not. It is uniform with the latter because the Introduction in these two cases is written on the same plan,

beginning with a common section of nearly five pages about Tennyson's conception of the *Idylls*, and the history and spiritual meaning of his *Idylls of the King*, before the editor proceeds to discuss the special *Idyll* he is editing. With the former it is unhappily not uniform, because it does not, as the former does, contain the masterly critical and analytical 'General Introduction' of Messrs. Rowe and Webb, originally prefixed by them to their "Selections from Tennyson" in 1888, and since then prefixed by each of them to his own separate editions of special works of the poet; nor does it contain anything remotely resembling this introduction. But this introduction is very important to the Indian student preparing for a University Examination. So we cannot help regarding the omission as a grave defect, more especially as there was the authority of Mr. Wallace, in his edition of *The Princess*, for its insertion at the beginning of a Tennysonian work not edited by either Mr. Rowe or Mr. Webb.

"For a general account of Tennyson and his poetry," says Mr. Macaulay, "I may be permitted to refer to Mr. Rowe's Introduction, to which I must also acknowledge obligation for several suggestive remarks." The obligation is large and obvious. The permission cannot be granted, if the volumes of 'MacMillan's English Classics Series' continue to be issued, each as an independent whole, intended primarily for the needs of our Indian students, and for use as text books in our Indian Colleges. The editor seems to be under the impression either that this series of English Classics is to be found in every College Library in India, which neither is now, nor is ever likely to be, true,—or that Indian students are as opulent and as much inclined to buy works of reference as the corresponding class in England, which is equally untrue.

After a careful perusal of the work, we are inclined to infer, from the above mentioned omission, and from the mode of treatment exhibited in many of the notes, that Mr. Macaulay is well-versed in classical and continental literature, but has no special knowledge of the niceties of English Grammar or of English Rhetoric, both so valuable in a work of this kind, and that he has next to no knowledge of the needs or requirements of Indian student life. To us, who judge from the standpoint of, and in the interests of, the Indian student, this work is a great disappointment after the well-judged annotations of Tennyson, evidently the outcome of long experience as practical teachers, by Messrs. Rowe, Webb, and Wallace.

The book clears up, as far as possible, most of the difficulties connected with the work. It will be found very useful and suggestive to the classically trained English teacher; and more interesting, useful,

and suitable to English-speaking students with a classical training than to the Indian student whose only classical language is Sanskrit, and whose vernacular is one of the hundreds scattered over Hindostan.

TRIVARGANUR in Telugu Verse, by *Cuddalore Narasimulu Naidu*, Tamil Pandit, Chengalraya Naiker's Commercial High School, Madras, 1892.

This is an attempt to introduce to the Telugu reading public the the Tamil work called Kural. The Tamil work is an inimitable work of genius, putting in sententious language and in a meter peculiarly the author's, his views on man's duty, worldly effects, and love-making,—so any translation must fall short of the original. The translator deserves credit for the attempt he has made. He has made the translation even too close in our opinion and a meter more common in Telugu could have been used with greater advantage. Notwithstanding these drawbacks, the translator deserves encouragement, more especially as the translation of authors from one vernacular to another, is a novel attempt.

NOTES ON QUALITATIVE CHEMICAL ANALYSIS by *P. Lakshmi Narasu Nayudu, B. A.*: Madras, *P. Murugesu Chetty*, 1892.

The *raison d'être* of this book does not appear on the surface. It may merely be a bad case of *cacoëthes scribendi*, or it may arise from a morbid craving after that form of notoriety which is attained by getting one's name printed on the title-page of a book, or it may be due to the mistaken idea that an author is necessarily an authority on the subject on which he undertakes to instruct the public. We are inclined to attribute it to an admixture of all these motives in about equal proportions; but as, in arriving at this conclusion and in publishing it, we may possibly be committing a grave injustice, we feel bound to produce the evidence on which the conclusion is based. The author may, as he announces in his preface, be animated solely by the desire to supply students with a cheap and suitable text-book, and not to turn a penny at their expense, but if this be his object, the question at once suggests itself—are there no cheap and suitable text-books available for students' use? Only in the event of the answer being in the negative does the publication of a work of this kind admit of justification; but, as a matter of fact, there are books enough on qualitative analysis and to spare, and although there are few without defects of some kind or another, the worst that has come under our notice is immeasurably superior to the production we are reviewing. Cheapness and suitability are relative terms, and this book, we hold, is dear at any price; whilst its suitability

for the purpose for which it is intended may be judged by what we have to say concerning it. The author evidently requires to be told that no one but a chemist can write a book on qualitative analysis, while almost any one can compile a book on the subject, and do it better than he has done it.

The author claims that his book possesses the unusual merit of "drawing the student's attention to the rationale of the various operations performed, and the nature of the various reactions that occur in the course of qualitative chemical analysis". We cannot agree with him; on the contrary, we consider that he signally fails to achieve what he professes. In the majority of books dealing with the subject, a distinction is drawn between the general reactions common to a group of metals and the special reactions characteristic of the several members of the group by which they are distinguished from each other; the reactions by which closely related acids are distinguished also receive particular attention. But these points, which, it might be said, constitute the whole rationale of the subject, receive the scantiest notice.

A better instance of the want of system and absence of rationale than that presented by the two chapters numbered XVI. it would be impossible to find. The former (which ought to be numbered XV.) is entitled "Preliminary Examination of a Solid," while the latter contains a "Systematic examination of a solid substance containing only one basic and one acid radical." These two tables have clearly been transferred bodily from different books, the only portion which is supplied by the author being the heading of the second table which, by the way, is decidedly misleading. The book from which the first table is taken is on Qualitative Analysis, that which furnished the second on Blowpipe Analysis. These tables do not, as the author seems to think, deal with different parts of the subject he is writing on, nor is the second table in any way complementary or supplementary to the first; they are simply two alternative methods for examining substances, the former being that practised by students of chemistry who work in laboratories, while the latter is employed chiefly for mineralogical purposes, where the use of solutions is by force of circumstances frequently precluded. The introduction of the second table into a book of this nature is entirely out of place, wherever inserted; in the position it occupies it can only puzzle and mislead the student.

In the introductory chapter there is a disquisition on the subject of radicals, which shows that the author's mind is in a condition of inextricable confusion on the subject. It is difficult to ascertain quite what his views are, but, apparently, ions and radicals are with him synony-

mous terms. Sulphuryl and phosphoryl and nitroxyl and carbonyl have no place in his theory; acetic acid does not contain the radical acetyl, nor oxalic acid oxatyl. In the next chapter he launches out into equations, and gives twenty-five of them in succession, just to get his hand in as it were. In fact the author appears to have chemical equations on the brain in an alarming form. He has hunted them up from every source at his command, and when the supply ran short he has invented them. Over and over again he multiplies them to an absurdly unnecessary extent, using three or four where one meets all the requirements of the case, until his book has become little else than a series of equations. Instances even occur where the same equation is repeated, though probably this is not intentional.

This book has received from us something more than the "cursory examination" on the strength of which the Principal of an important college has recommended it to his students, and as the only verdict we can pass upon it is one of unqualified condemnation, it is well that we should not confine ourselves to a more or less general criticism but that we should assign specific as well as general reasons for holding this opinion; we therefore proceed to give a few examples, selected at haphazard, which indicate what an imperfect acquaintance the author possesses with a subject on which he presumes to instruct others. On p. 2 the following statement referring to the nature of precipitates occurs:—"Others (*e.g.*, H_2SiO_3) are almost transparent, gelatinous, and hence difficultly soluble;" which is simple nonsense. On p. 3 we meet with the statement that " K_2CO_3 Aq. when treated with a solution of a strong acid is completely decomposed into a potassic salt and carbonic acid, the latter, however, immediately breaks up into H_2O and CO_2 ". Elsewhere the author states that acetic acid is a weak acid and therefore, presumably, does not decompose potassium carbonate. Nevertheless turning to the reaction for carbonic acid, we find that "all metallic carbonates when treated with acids (either strong or dilute) evolve CO_2 ." It would be interesting to learn what the author means by a "solution of a strong acid" and how he knows that a compound of H_2O and CO_2 is formed. On p. 6 it is said that the sulphates of Ba, Sr, and Pb are insoluble in water and in acids. Did the author never use an aqueous solution of strontium sulphate, or see lead sulphate precipitated from its solution in sulphuric acid? This misstatement with regard to strontium sulphate is repeated in the table of solubilities at the end of the book, which contains many other inaccuracies in addition. A couple of lines lower down we are told that copper is insoluble in hydrochloric acid. It is quite likely the author never dissolved it, but if he would only make the attempt he would find

it much easier than he imagines. Skipping a few leaves, on p. 28 it is stated that all the salts of bismuth are colourless. Immediately afterwards, scarlet, yellow, brown, and black compounds are mentioned. The same statement is made concerning the salts of silver; black, brown, dark-red, and yellow compounds being forthwith described. Silver, apparently, is a stumbling block to the author as well as to many other people. On p. 12 he gives an equation showing the precipitation of the oxide by ammonia, whilst on p. 19 it is the hydroxide which his equation shows to be precipitated. Making another jump to p. 40 we come across an equation showing the simultaneous precipitation of aluminium phosphate and formation of sulphuric acid. Yet we are told that aluminium phosphate is readily soluble in acids. The author should let his readers know which of these statements is to be accepted, as both cannot be true. Chromium phosphate is also said to be soluble in dilute mineral acids, yet the equation given proves the contrary. The sulphides of nickel and cobalt are, in different places, said to be easily soluble, difficultly soluble, and almost insoluble in hydrochloric acid. Examples of this kind might be multiplied *ad nauseam*. Let one more suffice. At the very end of the book a "Method of Record" is given, the object of which, presumably, is to teach students how to tabulate the results of the examination of a salt. In this marvellous table it is stated that the absence of a precipitate when "a few drops of strong HNO_3 " are added to an aqueous solution of the salt is a proof of the absence of iron, chromium, and aluminium. In addition to this gem, the table contains some of the choicest specimens of English and of chemistry we ever remember to have come across. It certainly is of value, but not quite in the manner intended by the author. It presents the student with examples of nearly every kind of error it is possible for him to fall into.

But if the Chemistry is bad, the English, as already hinted, is not much better. We are willing to believe that such an expression as "the eyes of a peacock father" is merely one of the countless typographical blunders which disfigure the book, and indicates nothing worse than extreme carelessness in correcting the proofs, but there are errors which cannot be explained in this manner,—for instance, the statement that chlorates both detonate and deflagrate on charcoal, that precipitates float, that ammonia has a fragrant smell and acetic acid a peculiar sweet odour, and many others. How far these arise from ignorance of the subject on which, and how far of the language in which, he writes, none but the author can reveal, but in certain cases the reader is left in no doubt on the point, the English employed being so bad as to render the meaning obscure. Take, for example, the phrase "when Zn. is treated to

only dilute H_2SO_4 ." Here the author probably means, "by the action of dilute sulphuric acid only on zinc," but he certainly does not say so. In the very opening sentence of the book he uses the expression "exerts the same chemical function," instead of *performs* or *discharges*. On the whole, we are inclined to think that the author, while improving his knowledge of chemistry, would do well to extend his acquaintance with the English tongue and to postpone further literary ventures till his studies in both subjects have progressed considerably beyond their present stage.

We have reviewed this work at far greater length than its importance entitles it to, merely because it is a type of a large class of books which is doing incalculable mischief among students, and which we hold it our duty to criticise unsparingly; and if what we have written deters students of chemistry from spending their money upon compilations of this description, instead of investing it in the purchase of books recommended by the University, we shall not have written in vain. But we have little faith in this result being attained. These publications have been denounced again and again, still they increase and multiply. The vanity of every youth who has acquired a smattering of any subject, combined with his knowledge of the simplicity of the class from which he has just emerged, prompt him to rush into print; the result being that the country is flooded with the undigested products of his so-called education: and this crude material it is which serves to no inconsiderable extent as the nutriment for the intellectual growth of the rising generation.

THE VICTORIA EDUCATIONAL ALMANAC AND DIRECTORY for 1893: Madras, Lawrence Asylum Press. Price Rs. 10.

This is a carefully compiled, neatly printed, and conveniently compact pocket companion, containing a large amount of information useful to students. We should suggest that in future years, the calendar might show the dates of the various examinations and of sending in applications for the same. An elastic band would make the book more handy for the pocket.

The following Books, have been received for Review:—

PIONEERS OF SCIENCE by *Oliver Lodge*, F.R.S. London, Macmillan & Co. 1893. Price 6s.

COMMENTARIES ON THE HISTORY OF ENGLAND, by *Montagu Burrows*. Edinburgh and London, William Blackwood & Sons, 1893.

PERIODS OF ENGLISH HISTORY, by *W. Scott Dalglish*, M.A., LL.D. London, T. Nelson & Sons, 1893. Three Vols. Price 2s. 6d. each.

ELEMENTARY LATIN GRAMMAR by *H. J. Roby* and *A. S. Wilkins*: London, Macmillan & Co., 1893. Price 2s. 6d.

VIRGIL, ÆNEID, Book I., (Elementary Classics), by *T. E. Page*, M.A. London, MacMillan & Co., 1892. Price 1s. 6d.

LIVY, Book IV., by *J. Prendeville* and *J. H. Freese*: London, George Bell and Sons, 1893. Price 1s. 6d.

THE SCHOOL CALENDAR, &c., by *V. Storr*, seventh year, 1893: London, Whittaker and Co.

HISTORY READERS, Book VI.: London, MacMillan and Co., 1892. Price 1s. 6d.

HISTORY OF ENGLAND (History Primers) by *Arabella B. Buckley*: London, MacMillan and Co., 1892. Price 1s.

THE GEOGRAPHY OF THE BRITISH COLONIES AND DEPENDENCIES by *W. Hughes* and *J. F. Williams*: London, George Philip and Son, 1892. Price 2s. 6d.

THE MARQUESS OF HASTINGS, K.G. (Rulers of India Series) by *Major Ross-of-Bladensburgh*, C.B.: Oxford, Clarendon Press, 1893. Price 2s. 6d.

TROPICAL AGRICULTURE, A Text Book, by *H. A. Alfred Nicholls*, M.D., &c.: London, MacMillan and Co., 1892. Price 6s.

DECCAN COLLEGE LECTURES, First Series, 1892: Madras, V. Kalyanaram Iyer, 1893. Price.

A TEXT-BOOK OF GENERAL GEOGRAPHY, by *Tanjore Srinivas Rao*: Madras, Addison and Co. Price Rs. 10.

SPENSER—THE FAERIE QUEENE, Bk. I., with Introduction and Notes, by *H. M. Percival*, M.A.: London, MacMillan & Co., 1893. Price 3s.

A GRAMMAR OF TAMIL GRAMMARS, by *David Joseph*, B.A.: Madras, S.P.C.K. Press, 1893. Price Rs. 1-8-0.

PERSIAN PROSODY, by *K. M. Jhaveri*, M.A.: Bombay, Nasarranji M. Cooper, 1892. Price Re. 1.

ELEMENTARY STATICS, by *J. T. Hathornthwaite*, M.A.: Bombay, Nasarranji M. Cooper, 1892. Key to same.

SIMPLE STORIES FROM ENGLISH HISTORY, Longman's 'Ship' Historical Readers, 1893. Book I., 9d; Book II., 10d. In one Vol. Price 1s. 6d.

Office of the Registrar
of Books, Madras.

REVIEW OF EDUCATIONAL REVIEWS.

INDIAN.

The Madras Christian College Magazine.—1. 'Some aspects of Religious Journalism', by the Editor, is a protest against the application of the 'New Journalism' to religious news. The matter in discussion falls outside our limits; we fear, however, that the *Fin-de-siècle*-ism of the *British Weekly*, Dr. Lunt, Mr. Stead, and their compeers, is a stronger force than our contemporary reckons it to be. 2. 'What does India really Need?' by Ahmed Hussain, M.A., D.L., is an academic article of a type now common, that does not get us 'any forrarder'. 3. 'A Communist on India' is a review of Mr. Carpenter's recent book *From Adam's Peak to Elephantia*. The Review contains the following passage, remarkable as occurring where it does:—

Two more points we desire to allude to in connection with these remarks of Mr. Carpenter's. One is that personally we seem to trace a progressive diminution in the generous feelings of young members of the ruling class, as they come out here, towards the ruled, which bears a striking proportion to the continuous widening of the gulf between the classes from which they come and the democracy at home. Secondly, we suspect that, for every man who retires early from Government service because, as Mr. Carpenter puts it, he has got a competence out of the country, you will find another who is impelled out of it early because he finds himself a mere wheel in a huge machine of well-meant but arbitrary, unsympathetic, often apparently mean, despotism, in which he has no scope for any of his aspirations, or to be anything except an intelligent but unindividual agent for carrying out orders."

The Indian Magazine and Review.—1. 'A Home for Bengal widows' gives an interesting account of an Institution founded by Sasipada Banerjee, a Kulin Brahmin of Bayanagar. 2. The account of 'Aboq' and its temples, by Chester MacNaghten is continued. The following extract should interest,—Mr. Caine let us say, his back is the broadest we know of:—

"One cannot but admire the natives of these beautiful wilds. They are well-grown in stature, and handsome in feature: with the dash and addiction to spirits and drugs which seem to possess hill-men everywhere. What whisky is to the Highlander, opium is to these Bhoels. Our guide opened his opium-box, and, grinning through his beautiful teeth, offered each of us a small pill. He showed us the sort of pill in which he himself indulged daily—enough, as a first introduction, to send any ordinary mortal to eternal sleep. I believe it would have given him pleasure if we had accepted his hospitable, and really generous, offer. He himself, in spite of his opium, was the very ideal of agility and strength. Can it be said that opium in India is half as baneful as spirits in England?"

3. 'A Gujarati Poet' by C. H. Selalvad, is an account of *Narmada Shanker* who was born at Surat in 1833 and died at Bombay in 1886. He

was a very energetic reformer, indeed. In 1866 he was outcasted for sheltering a widow in his house but was readmitted. In 1869, 'carried away', as the writer naively remarks, 'by his too acute feelings for the misery of widows', he privately married a widow. As unluckily he had a wife still alive, we need not be surprised that this 'created a great uproar, which was not quieted till his death'. Here is a specimen of his poetry on the occasion of the Prince of Wales' visit to India.

"Come, let us seize this happy hour to sing
With one accord the rights we here enjoy—
For these are blessings of the British rule!
Lo! female education, once not known,
Has taken root and spreads with rapid strides,
By favour of the gracious British rule;
Now see the woman by her husband's side
Share his concerns, increase the bliss of home,
And bless in happiness the British rule.
Once more, then, shall we seize this happy hour
To sing before thee, worthy Prince, our rights,
And bless, and bless again, the British rule."

The *Viveka Chintamani*, a popular Tamil Magazine, contains some interesting matter. 'Why the ripened fruit falls to the ground', is clearly explained by Mr. K. G. Sessa Aiyar, and Mr. K. Sundararama Aiyar continues his paper on the 'Theory of Rights'. A conversation between husband and wife turns on the question of their young daughter's marriage and is not badly managed, the former advancing reasons for putting it off on the ground of early age, and the latter arguing on the custom and its benefits in her view. The causes of the degeneracy of the Hindus are traced to early marriage, fasts and starvation, excess of mental work, &c. These and other useful articles are all written in an easy and colloquial style.

The Industrial Quarterly Review of Western India for the month of January, publishes a paper on 'Indian Political Economy', read before the Deccan College Union by Row Bahadur M. G. Ranade to which we shall recur when reviewing the collected volume of Deccan College Lectures. There is another very interesting article on the Material and Industrial condition of the Kolhapur State. It sets forth in detail what has been done and what is being done by the State for developing its agricultural, forest, mineral, and industrial resources. Kolhapur was long noted for its paper-manufactures, owning at one time more than 100 paper-mills. Most of its original industries had suffered much, but it is gratifying to see that they are reviving. Agriculture being the principal source of livelihood to the population there, it has received considerable encouragement from the State which, by engaging the services of

specialists, by introducing foreign breeds and by frequently distributing seeds, afford great facilities for its development. There is a separate department for forest resources which has proved beneficial both to the State and to the ryot. A geological survey now begun will, it is hoped, prove immensely useful, while the Technical School, established in honor of Sir James Ferguson, largely contributes to the success of other industries. Industrial exhibitions are frequently held, and no fewer than 7,584 articles of the aggregate value of Rs. 1,32,413, were exhibited by 1,943 exhibitors in the second exhibition as against 1,667 articles of Rs. 11,280 by 443 exhibitors, in the first. And this increase is due to the wonderful zeal and activity displayed in industrial enterprises. Again, want of accurate information prevents the simultaneous success in working the quarries of stones and other minerals. Lithographic stone is found near the State mines of Katgot and Torgul, and if vigorously and more deeply worked into, will find a very good market all over India. Pottery, dyeing, carpentry and leather work are all promising. But creditable as this state of various industries may be, if only the State would organise separate departments for each of them, as it had done for the forests, the Kolhapur State would rank very high in the scale of the industrial provinces of India.

ENGLISH.

The Journal of Education.—1. 'Notes on the training of secondary Teachers in Germany,' by J. J. Findlay, is concluded. 2. 'Higher Education in Germany and the crowding of the Professions,' by W. H. Dawson, is pessimistic enough for Prof. Mahaffy. The following extracts may be read in connection with the extracts from the Professor's article on another page.

"It cannot be doubted that, next to a multiplicity of Universities, the centralization in the hands of the State of so many spheres of work necessitating high educational qualifications is responsible for this superfluity of studied people, with the consequent overcrowding of the professions. Where the State assumes paternal functions, it is only to be expected that a strong tendency to look to the State for help will be created. In Germany, the State claims to exercise jurisdiction in some departments of public service which in England are left more or less to private or semi-private management. Apart from the army and navy, and the various establishments connected with them, apart from the postal, railway, customs, and inland revenue services, entrance to the Church and to the legal and teaching professions can only be gained through State doors, and every gradation of advancement is regulated with the same routine as is the promotion of officers in the army or navy. With, perhaps, a single exception, all the positions which the State has the power to bestow are besieged as were the doors of Bishop Hatfield's granary, for the competition is largely what the Emperor William II. has described it to be—competition between "hungre-candidates." The Church is the one branch of the State service

in which there has hitherto been room for all, and more than all, who have offered themselves.

* "Not long ago a curious illustration occurred of the painful waiting and also of the ill reward of professional men. A philological student finished his University course, took his degree, and then qualified for a position of Gymnasium teacher, for which a further examination was necessary. He then acted as deputy teacher for a term, and after that waited two years for a call to perform his year of probation, but it did not come. Disappointed, and weary of idleness, he turned to medicine. Entering the University again, he studied the whole four years' course, passed his examinations, and then settled down in the North of Germany, as a doctor. After practising two years, unknown to the Education Department he was astonished one day to receive an offer of an assistant-teacher's position in a Gymnasium. It was now over eight years since he qualified for a scholastic career and he was now offered a pittance of £100 a year."

3. 'School Libraries', by Foster Watson, is a chatty historical paper. His earliest reference dates from 1588 when *9d.* were 'paid for a chayne and settinge in thereof, for the fastenyng of the Dictionarie in the Schole house' of Tavistock. 4. 'High Degrees in Education,' also by Foster Watson is an article suggested by the recent recommendation of the Convocation of London University that a degree in Teaching should be instituted.

The Educational Times.—1. 'The teaching of Mathematics', by Professor W. H. H. Hudson, is a paper read before the College of Preceptors. The following are prescribed as *Minor maxims*, minor that is to the 'Three great' Laws of Teaching, The Law of Understanding, the Law of Sequence and the Law of Continuity.' (1) Principles are more important than methods and formulæ; (2) Make slow progress with firm steps; (3) Vary non-essentials. From the Editorial notes we cull the following.

"It would appear from sundry indications that we are not unlikely to see some rather startling developments of Free Education before the end of the century. To provide gratuitous schooling for all, is, it is beginning to be felt, not the whole duty of the State in this matter. Plainly, such provision can only be of use to those who can take advantage of it. The discovery has been made that large numbers of children attend school breakfastless and insufficiently clad, that is, in a condition of body and mind in which it would be positively cruel, even if it were possible, to put them through the same course of instruction as that of their properly fed schoolfellows. What is to be done with such children? "Feed them and clothe them at the cost of the community," is the short and simple answer. This was the course that a deputation which waited on Mr. Acland, the Vice-President of the Council, two or three weeks ago, unmistakably indicated. Mr. Hyndman, the spokesman of the deputation, indeed, contended that if it were necessary to place the cost of providing a meal upon the rates, even then it would, in the long run, be a saving, inasmuch as there would be fewer inmates of lunatic and other asylums, less necessity for charity, and healthy young men and women in the place of the decrepit and stunted individuals who were to be seen amongst us.

The concluding sentence of Mr. Hyndman's speech put the dilemma of Compulsory Free Education in a form in which it evidently had been much revolved on by the Vice-President. The "interests of humanity" were at stake, and so "children who were compelled to attend school should, if necessitous, be properly fed and cared for." Never before, we should think, did a deputation interview a Cabinet Minister so well disposed towards giving the relief asked for. The Vice-President, however, on the whole, made no concealment of his disposition to assent generally to the views of the deputation. He had always, he told them, "felt that the outfit which school children were receiving, whether in relation to their bodies or their minds, was of the highest importance for the future social and industrial welfare of the country." Referring to the plan of feeding children as it is practised in Paris, he said he had seen the children receiving their meals in some of those admirable Paris schools, and he watched with the greatest interest the way in which matters were arranged so that no distinction should be drawn between the child who paid for its meal, and the child whose parents were unable to do so, but who deserved the same care and attention. That was done with the greatest delicacy and care, so that nobody knew except the teachers which of the children had paid for its meal and which had not.

Dealing with the practical suggestions of the deputation, Mr. Acland pointed out certain difficulties in the way of authorizing School Boards to pay out of the rates for free meals, and expressed his preference for delegating that duty to County Councils. "Some day," he said, "a great municipal body like the London County Council might desire to have the power to make from time to time grants in the manner indicated. He had always been in favor of a very considerable freedom of choice of that sort being given to the municipalities of this country."

The laxity with which statesmen are prepared in these days to entrust the violation of general principles and maxims of government to local authorities, bids fair to raise a crop of difficulties, social and financial, at no distant date, which it will sorely tax the resources of the country to meet. We sow the wind; our children will reap the whirlwind. To attempt to bring all children—those of the idle, dissolute drunkard and the sober, frugal, industrious workman—to the same level in the schools, is indeed a large order.

If a Minister of Education dreams that he can bring up a vigorous and independent race by creating an artificial equality in conflict with nature, to carry out his scheme, he will, we fear, have to begin the equalizing process before the school age, and may even have to look favourably at such a method of selected infanticide as obtained amongst the Spartans."

AMERICAN.

The Educational Review, (February, New York), 1. 'Need of Universities in the United States,' by Hermann E. von Holst, the oration delivered at the First Convocation of the University of Chicago, is referred to in our News and Notes columns. It is, however, a weighty and valuable paper, full of pregnant sayings and far-reaching probings, with not a little applicable, *mutatis mutandis*, to our University problem in India. We hope to give it in full to our readers in an early number. 2. 'Educational Exhibits at World's Fairs since 1851,' by Richard

Waterman Jr., does teach us much. 3. 'Relations of Literature and Philology,' by Oliver Farrer Emerson, is evidently written by one of the many Philologists who have been goaded to desperation by Mr. Churton Collins. He desires, however, not to drive Literature from the field but to confine it to its sphere. There should be no antagonism between the two studies.

"In philology we are dealing with the phenomena of language as a science; in literature we are dealing with one of the fine arts. In the one the methods of exact science are employed; in the other æsthetic criticism. The one discusses language with reference to its phonetic, inflectional, and syntactical systems; the other deals with language solely as a medium of thought considered as it gives pleasure to the higher faculties of mind and heart. The aim of the one is to understand the natural in expression, its origin and development; the aim of the other is to appreciate the beautiful and the good."

"To sum up, there are at least three lines of literary study, against which no objections of indefiniteness can possibly be urged. They are:

1. The study of an author's language. This is placed first because it is an essential in all our older authors, and to some extent even in the most modern, though it is by no means of prime importance except as a factor in literary study. This portion of the study necessarily rests on philology.

2. The historical study of literature. This part of the study deals with history and biography. But it is by no means necessary herein to obtrude the skeleton of dates and events, since it is rather the age's "outward body and inward spirit" that should be sought. Moreover, as history becomes philosophic by special attention to causes and effects, so literary history may study the causes of growth and decay, and examine the reasons for those flood tides that come upon the seas of national thought.

3. The comparative study of literature. This is a study of origins and influences, of one nation in its effect upon another, of classicism, romanticism, realism as they appear in different countries. In this department literature is studied as both national and international.

To these should be added a fourth division, the criticism of literature as one of the fine arts; but, as pointed out, this is as yet unsystematic and formless. Few attempts have been made to get at the principles upon which æsthetic criticism rests, and for this reason more than any other, discredit has been thrown upon literary teaching itself. In reality, however, here is a most important field to be occupied in the future.

It remains to say something of the sphere of philology, and especially the philology that relates to the English tongue. That there is a great future for a science so young and vigorous no one having the slightest acquaintance with the subject can doubt. Indeed the science is but entering upon the possession of a vast field of knowledge, the results of which must be of immense value in explaining the nature and growth of language. Some idea of the breadth of the science may be gained by considering its relations to other spheres of knowledge. Philology, in its study of languages as they relate to races, is an important factor in the science of ethnology. As an interpreter of historical records, it is the helpmeet of history. As assisting in the elucidation of textual difficulties, it is the handmaid of literature. In its consi-

deration of origins in language, the virgin field of sematology, or the science of meanings in words, and those changes in the forms of speech depending on the subtler psychological influences, it leans upon philosophy. Moreover, the methods employed in philology are now without question those of the exactest science. In no science is the comparative method more strictly used, for at the present day all proper philological teaching rests on a comparative basis. It is no longer possible to teach the philology of a single tongue, much less a tongue like the English with its diverse parts, by any other than the comparative method. Finally, the science is in that stage which gives the greatest opportunity for inductive research, and hence perhaps the greatest educational value."

4 'Electives in the High School,' by Edward J. Goodwin, is minute statistical account of how what we here call 'optionals' worked in the Board Schools of Newton, Mass. 5 'Text Books of Geography,' by J. W. Redway, is an interesting criticism by one evidently 'in the know' of these manuals and how they are manufactured.

Education, (February, Boston.) 1. 'Experts in Education,' by Larkin Dunkin, LL.D. Headmaster of the Boston Normal School, is a terrible article. We are sure the author is quite serious and not doing anything at all like what his name implies; yet these are the qualifications a man must possess before he can become an expert.

1. He must know the aim, or purpose of education. This implies familiarity with all the essentials of the civilization of the nation in which the pupils live, with the duties which the children to be educated will be called upon, as men and women, to perform, and also with the condition of body and mind needed for the best service to others and for the greatest personal happiness. It implies a clear conception of the knowledge, power, and habits which future citizens will need.

2. He must be acquainted with the process of education as it takes place in the mind of the child. He must know all the activities, physical, intellectual, æsthetic and moral, which result in the transformation of the child from what he is at the beginning of the process into what he should be at the end. He must know the relative amount of these various activities and the necessary order of their sequence; otherwise he cannot adapt his program to the developing minds of the children, and to their successive states of knowledge of the same subject matter.

3. He must know the different classes of educators, and the part that each class is to perform in the work of education. He must separate the duties of the family, civil society, the state, and the church, from those of the school; and he must assign to each its proper functions. If he has not done this, he is likely to undertake to give the child his entire education in school; thus assuming the duties of all the fundamental agencies of education and putting upon the school the responsibility which should be shared by the family, civil society, the state, and the church.

4. He must know the means needed for causing in the child that part of the process of education which should be performed in school. He must understand the office of direct observation. He must know what part of the mental activity needed for the equipment of the child with knowledge and power can come from

direct perception alone. He must understand the office of minerals, plants, animals, atmospheric phenomena, and the movements of the heavenly bodies, in the excitation of the mind to action. He must know the place of oral instruction in education; and he must see clearly the use, and the time for the use, of books as stimulants of the mind.

5. He must be fairly familiar with the doctrine of educational values. He must be able to distinguish between the knowledge and mental training resulting from the pursuit of any branch of study, and to estimate the value of each separately and of both together. He must be able, for example, to take the subject of arithmetic under consideration, and to decide just what amount of knowledge of addition, subtraction, multiplication, division, denominate numbers, common and decimal fractions, percentage and its applications, powers and roots, mensuration, and so on, is essential to the duties of the future men and women, who, at children, are to be educated in the schools. Then he must be able to understand clearly the effect upon the minds of the children of acquiring this knowledge. And, finally, he must be able to decide whether there is any additional training of the mind, either in the development of power or in the forming of mental habits, of such paramount importance that it should be secured by a further study of the subject, even if the knowledge incidentally gained is of little value. He must be able to treat in the same way, reading, writing, spelling, grammar, geography, drawing, music, algebra, geometry, mineralogy, botany, geology, physiology, and all other subjects which might be introduced into the program of the common schools. He must be able to estimate fairly well the time that will be required to gain the necessary knowledge of each subject, and the additional time in which to gain the mental power which he conceives to be needed over and above what will result from the acquisition of the necessary knowledge. He is now prepared to find the sum of the times required to do the work decided upon in all the proposed studies. If this sum exceeds the available school time of the children, it will be necessary to subtract the time devoted to purely mental training, which has no reference to needed knowledge. This done, if the required time is still in excess of the available time, there must begin a process of comparison, by which it can be ascertained how much the time required for each study can be further reduced without the loss of knowledge of more value than that resulting from the further reduction of the time devoted to any other subject.

And here is a personal incident showing that Dr. Larkin Dunkin is just the sort of man to get on well with a Board of Trustees or Managing Committee of a School or College.

A little more than twenty years ago I was asked by the late Mr. Loring Lothrop, then a member of the Boston school committee, and chairman of the special committee on the Normal school, to be a candidate for the office of head master. At the end of a long conference I said to him: "Mr. Lothrop, I do not wish to put you or your committee in a false light, and I do not wish, by and by, to be thought obstinate; therefore I wish to state at this time one conclusion that I have reached. If my election as head master of the Boston Normal school depends upon an examination by a committee of the School Board, count me out. I never will submit to such an examination. If you will allow me to select an examining committee, I will name John P. Philbrick of Boston, Charles W. Eliot of Cambridge,

and Daniel B. Hagar of Salem, and I will be quite willing to be examined by them for a fortnight, and to stand or fall by the result; but I will never submit to an examination by a committee of lawyers, doctors and merchants, who know nothing of the science of education. 'Guarantee my election at the close of the examination and it will not so much as tempt me, notwithstanding I would prefer this head mastership to any other educational position in the United States.'

2. 'Reminiscences of Howell Mason,' by W. A. Mowry. 3. 'Reminiscences of Penikese,' by H. B. C. Beedy, are really reminiscences, slight but interesting of 'our beloved and honoured Agassiz'. 4. In 'The Scottish School of Rhetoric', Mr. Williams finishes Kames and begins Campbell whose 'Philosophy of Rhetoric' was published in 1776. Campbell's strong point was 'the sentence' and his treatment of it forms the basis of much that has been since written on the subject. 5. 'A plea for the Use of accuracy in Words', by Dr. George M. Steele, is an article on a good subject that might have been made more of. One pair of words for which discrimination is pleaded, might well retain the meanings here attached and so avoid a constant and useless confusion. We refer to *Trade* and *Commerce*. *Commerce* is the exchange of commodities by their producers; *trade* is the agency by which the exchange is effected. 6. 'Americanisms,' by G. W. Hart.

NEWS AND NOTES.

INDIAN.

The following is an abstract of the report of the Madras Presidency Training School for Mistresses for 1892-3, read at the distribution of prizes by H. E. the Governor, on the 7th of March. In the Normal Department there are 59 students, 17 of whom are caste Hindus. During the year 22 students left, 19 of them securing employment in Madras and other places. The results of the School in the public examinations were satisfactory: 2 candidates appeared for the Higher Examination for Women and one passed in the 1st class; 2 were presented for the Lower Secondary and both passed. In the Practical Test all the four that appeared have passed. In the English Practical Test there are 73 against 80 of last year, and this decrease in the Upper Class was due to the unpopularity of the Upper Secondary Examination. There are 89 in the Practical Test of the Hindu Department against 76 of last year. The library and others are in good order. On the whole there was satisfactory progress in the year under report.

At a meeting of the students, past and present, of the Presidency College, Madras, held on the 8th March with Mr. G. Venkataranga Row, M.A., in the chair, it was resolved that a letter be written to Dr. Duncan requesting him to sit for his portrait and that a subscription list be opened to meet the expenses of the portrait, to which the students of the College and other sympathisers will be requested to contribute. A committee has also been appointed to take further steps in the matter.

At the last Matriculation Examination of the Bombay University 1,054 candidates have come out successful with marks ranging from 187½ to 504, which last total was gained by a girl from the John Connon High School, Bombay.

The Silver Medal offered by His Excellency the Viceroy to the pupil of the three High Schools of Poona who might pass the Matriculation highest has been won by Shripat Baji Joy, of the New English School, who passed second on the whole list. The highest on the list was a girl.—*B. Ed. R.*

Mr. F. G. Selby, Principal of the Deccan College, entered into occupation of the bungalow which has been built by Government specially for the Principal on a plot of ground adjoining the College, on the 1st February. This is the beginning of a reform which has for many years been desiderated by all well-wishers not only of the Deccan but of other Colleges. Bungalows for the rest of the Professorial staff will probably follow in due course.—*B. Ed. R.*

The Teachers' Association, Trichinopoly, has recently been incorporated under Act XXI of 1860. The last annual report records some good work done. There were 15 meetings held with an average attendance of 66½ per cent. Questions concerning Examinations and teachers had been discussed, besides papers on 'The life of Pestalozzi' 'The reorganization of elementary education in France', &c., read by its members. The President, The Rev. T. H. Dodson, M.A., concludes his report thus: "The Association may be fairly considered to have done such substantial and useful work as an intelligent and farsighted view could possibly expect from it during the past year."

Justice Pigott, the Vice-Chancellor of the Calcutta University, in his address on the Convocation day, placed a lofty ideal before the graduates. University Education has in his view "already become to some extent, "a social requirement; a condition for the better rank of social intercourse. We are passing away from that stage of its progress in this

"country at which Education was regarded chiefly or solely as a means
 "of securing employment under Government and derived, from its being
 "regarded in that light, such importance as it had. The education
 "which we encourage and enact has now taken some sort of rank as a
 "thing needed for its own sake, independently of its value as a means
 "of attaining success in the professions or in other walks of life." This
 remark, we fear, applies only to a very limited number of Indian
 graduates. Otherwise there should be in India a large body of educated
 men having leisure for independent researches. In England a liberal
 education is regarded as *siné quâ non* of social or political position.
 Sir H. B. E. Frere in an eloquent address he delivered in 1863,
 contrasted the condition of India and England in this respect.
 "I can only assure you," he said, "that practical hard-headed money-
 "making race as the English are said to be, no man amongst us, as a
 "general rule, aspires to political or social eminence without the advan-
 "tage of a liberal education, and what is more, no family long main-
 "tains a high position, in the political or social scale, unless its members
 "seek to acquire this advantage. This is a truth which I would wish
 "the successful merchants and bankers of this island more particularly
 "to lay to heart. If they go to England they will find our leading
 "commercial men treated as equals by the most exclusive aristocracy in
 "the world and occupying a position of the highest influence in the
 "administration of public affairs. You will soon find out your mistake
 "if you suppose that this position is due to their wealth. You will find
 "that in England the possession of wealth, unaccompanied by that
 "refinement of thought and manner which liberal education alone can
 "give, makes the possessor simply ridiculous; and you will find, if you
 "enquire into the history of particular families, that, whereas new-
 "born wealth in the hands of men, liberally educated or who rightly
 "value a liberal education for their offspring, has a tendency to consoli-
 "date and perpetuate itself, the most ample fortune entrusted to a man
 "who does not possess and deliberately undervalues a liberal educa-
 "tion has a perpetual tendency to waste away and leave his possessor
 "far worse off than his industrious ancestor who first emerged from
 "his poverty by his own exertions."

Since these words were uttered a great change for the better has
 come over the mercantile and wealthier classes. Many of the members
 of these classes now give a high-class education to their sons. But
 there are still a very large number of rich men in India who have not
 yet realized what a great power liberal education is.

Readers will remember that one of the means suggested by the
 Government of India for the improvement of moral training in Schools
 and Colleges was the introduction of "Conduct Registers," and that
 the compilation of the official reports on that and other suggestions
 was some time ago made public. One of the drollest things in the
 compilation has somehow hitherto escaped notice. A Madras education-
 ist reports: "The introduction of Conduct Registers can be easily adopt-
 ed. The jails and the police of this Presidency have similar registers,
 and I believe the system works there well." Was this a conscious piece
 of audacious humour, we wonder, or an exhibition of pure innocence?
 Anyhow *jails and police* is distinctly "good" as Polonius says, and
 deserves to be remembered to the credit of Madras—*Bombay Educational
 Record*.

We are glad to note that the Director of Public Instruction, Madras,
 has recommended the purchase of the Telugu Journal of Education by
 all Telugu training schools from their contingent allowances if their
 finances permit it. The number for *March* contains short and interesting
 notes and is, as usual, well got up.

The Report for 1892 of the Council of the Victoria Technical Insti-
 tute (Madras) shows that the same policy has been pursued as in
 previous years. During the year under report eleven stipendiaries com-
 pleted their course in Drawing at the Teachers' College; all of whom
 have now joined their respective schools. Intimation has been received
 that six out of the eleven have already begun teaching Drawing in their
 Schools. There are now twelve stipendiaries undergoing training in the
 College. There was only one stipendiary in the College of Engineering.
 He appeared for the Government Technical Examination in Mensura-
 tion, but failed. Major Love in his report states that this student has
 now a fair prospect of success at the ensuing Examination in the
 three subjects,—Mensuration, Surveying, and Plan-Drawing and Esti-
 mating. His scholarship was extended for three months; so that he
 completed his course in December, rejoining the Maharajah's College,
 Pudukotta. There was also only one student at the College of Agricul-
 ture, who completed his course in April 1892. Owing to the re-organi-
 zation of the College Curriculum, requiring attendance for three years,
 no more stipends could be awarded to Agricultural students. Of eight
 students admitted to the School of Arts during the year, five completed
 their course and rejoined their schools. In the case of two others the
 scholarships were extended on the recommendation of the Superinten-
 dent, so that three of the stipendiaries of 1892 remained in the School

at the end of the year. Since the beginning of the year several new stipendiaries have been admitted.

* * *

Results Grants were awarded as follows:—L. F. School, Dharmavaram, Rs. 12; H. L. G. M. School, Tirupati, Rs. 27; A. N. M. High School, Bangalore, Rs. 84. A grant of Rs. 118 was drawn on account of the Drawing-Master in the A. V. T. Institute, Trichinopoly. The Council has offered a monthly grant to enable an Instructor to be trained theoretically and practically in Telegraphy.

* * *

As to the future, the Report states that the buildings placed at the disposal of the Institute in G. O., dated 6th May 1890, No. 313, are now approaching completion and will probably be ready for occupation at the end of 1893. In view of this, the Council have requested their Secretary to prepare a scheme for the establishment of an Upper Secondary Technical School, with attached Evening Classes, in accordance with the suggestions made in his Memorandum. They also propose to purchase, during the year 1893, Technical Books for the Library from the donation made by Rai Bahadur Arcot, Dhanakhoti Mudaliyar for that purpose. The total receipts for the year were Rs. 7,036-6-4, and the actual expenditure Rs. 5,106-6-8, leaving a balance of Rs. 1,919-15-8. Of the opening balance, Rs. 1,465-3-0, Rs. 1,000 were placed on Fixed Deposit, so that the closing balance amounted to Rs. 2,395-2-8.

GENERAL.

Among the resolutions carried at the last meeting of Convocation of London University was the following:—That it is desirable that this University should recognise, by the institution of a high degree, that considerable and important branch of knowledge that has received so much development during recent years in connection with the scientific study of education, and that it be referred to the Annual Committee to consider a scheme for such degree and report to the next meeting of Convocation.

* * *

‘Tot homines, quot sententiae.’ While half the world is mad after the endowment of research, and even in the hither half, in India itself, voices are heard crying in the night and in the wilderness for university fellowships for brilliant graduates, there be who consider it a curse, a paralyzing spell thrown over genius. At least one man so thinks and his letter appears in leader type in an important London Daily.

SIR.—Allow me, as an Oxford man and a biologist, to express the hope that Professor Lankester's scheme, on which "F.R.S." enlarged so ably in your issue of Monday, may fail to secure fellowships at Oxford for the young science man. I say

this with all respect for that distinguished biologist, and solely in the interests of the budding scientist. I would save the latter from the dismal fate of the common or garden Don, the man of Greats or (worse still) of history. There are few tragedies so sad as the brilliant young man doomed by an early fellowship to intellectual impotence; and it is painful to contemplate the research after endowment leading science men (unless science be played out for the time being, as my friends tell me) to the life-long sterility of the common room. If a man is to do anything original, in whatever branch of study, he must leave Oxford (or Cambridge, as the case may be) when he takes his degree, and leave without a fellowship. A fellowship should reward work done, not the promise which fizzles out in the scholar who cannot decipher a manuscript. The fate of the classical man (and I take classical "greats" to be the finest propaedeutic in the world), has of late years struck down the history man; the History School of Oxford (and Cambridge cannot equal it) has sunk to producing 'Stories of the Nations and Epochs of History,' all of which may be very good in their way, but the way is a little way, unworthy of the great founders (mostly Greats men, I believe) of the Oxford School of History. So far Science, and particularly Biology, has mostly been spared the common room; its votaries have not been transformed by Circe. What is needed is not to follow Cambridge (headed by St. John's and the small colleges, I believe) in corrupting youth by unearned increments; but, instead, to elect to fellowships only men of approved scholarship, men who have actually done original work, and to elect the best men, no matter whether they are Oxford men or not by early education.—I am, &c., BIOLOGUE.

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Statistics of the French *facultés* (universities) recently published, show a continuance of increase in the number of students. The enrolment in the state *facultés* in 1892 was 22,268 or 1,483 above the previous year, and in the private *facultés* 1,022, a gain of 91. The development of the provincial *facultés* is evidenced by the fact that while Paris has 697 more students than in 1887, the total in the capital is no longer, as at that date, half of the whole number. The *facultés* of letters and sciences, whose attendance 5 years ago was noted with satisfaction by the minister of public instruction, have doubled their enrolment, showing 4,675 students in 1892 against 2,393 in 1887. The distribution of students among the *facultés*, state and private, is as follows:—

Protestant theology, state,	98		
Law,	7,926	public.	694 private.
Medicine,	6,067	"	151 "
Pharmacy,	1,984	"	16 "
Medicine and Pharmacy,	1,518	"	" "
Letters,	2,834	"	83 "
Sciences,	1,841	"	78 "

The number of foreign students was 1,397, of whom medicine attracted more than half (839.) The appropriation called for in the budget of 1893 is 11,838,815 *frs.* (Rs. 75,77,000.) This is an increase of

Rs. 2,47,000 above the appropriation for 1887. The opening of a new *faculté* of medicine and pharmacy at Toulouse accounts for Rs. 1,80,000 of this increase. The receipts of the faculties meanwhile which are passed over to the state treasury have risen from 4,709,780 frs, to 5,358, 870 frs, and thus cover 45 % of the expenditure.

The committee formed by Mr. Acland of officers from the various departments more or less allied with the Education Office to consider in what way they may best co-operative for the purpose of advancing secondary and higher grade education has held several meetings, and the hope is entertained that a report may be forthcoming shortly. It will, no doubt, show what powers these departments already possess for the purpose of promoting secondary and technical instruction, and what further powers they need. It is also to be hoped that the committee will see its way to some practical suggestion which will permit of immediate adoption. While England is thinking Scotland and the Continental nations are doing. A few days back, in reviewing the constitution of the committee, we referred to what is called the "Leaving Certificate Examination" in Scotland, corresponding to the "Certificate d' Etudes" in France. Dr. Fitch proposes for England and Wales, in the elementary schools, a leaving examination of real educational value, such as would attest the satisfactory completion of a good elementary course; for example, if it were not attainable until at least the age of twelve, and if it included the work at present prescribed for the Seventh Standard of the code with two of the four class subjects: English, geography history, and elementary science. This is a valuable and most important proposal. What we desire to see is an extension of the principle, so that it shall embrace the whole of the endowed and higher grade schools. The English "leaving certificate" might be of several grades: Class I., covering the ground Dr. Fitch has described above; Class II., which should cover, besides the elementary subjects, technical subjects such as shorthand, machine drawing, and one modern language for boys and girls under fifteen or sixteen; and Class I., for scholars over that age, with an examination somewhat under the range of the London University matriculation examination. It is our earnest hope that this departmental committee will at once offer us such an instalment as this.—*Daily Chronicle*.

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The first convocation of the University of Chicago held on January 2, 1893, was noteworthy in several respects. As an academic gathering it was remarkable for size and for its character. The enthusiasm was very great, and the oration of Professor von Holst was worthy

of the occasion. The University has now added to its corporate title the words "Founded by John D. Rockefeller." This is a fitting recognition of the generosity of the man whose gifts to this new institution are now approaching \$4,000,000. For a gift no larger than this the name of Johns Hopkins is known wherever scholars gather together or scientific research is carried on. Happily the University of Chicago with all of its millions is poor, and if it is to fulfil the hopes and plans of its founders and its president, the present endowment must be trebled. That it will be trebled in good time, no one who knows the forces that are behind it can doubt.—*Ed. Rev., N. Y.*

But the oration of Professor von Holst has a significance of its own, quite apart from that of the occasion that called it forth. The orator is a German University Professor, trained in the rigid school of German educational thought. He has been for many years a laborious and successful student of the development of American political institutions. So that he speaks with a twofold competence. "There is in the United States as yet not a single University in the sense attached to this word by Europeans," says Professor von Holst. This frank statement will reverberate around the country and serve as a useful offset to the tabulated statements of our many score 'universities' that appear from time to time in official reports and in the press. Yet, it may truly be said that we have universities nevertheless. Harvard has all the four traditional faculties. Columbia has three of them and three others—too many, perhaps. Johns Hopkins has one and the beginnings of a second. Chicago itself has two. Perhaps Professor von Holst would call Columbia, Johns Hopkins, and Chicago 'torsos of universities' and Harvard's university department an "aftergrowth, figuring still to some extent as a kind of annex or excrescence of the College." From a German point of view he may be right. But it must not be too hastily assumed that the German point of view is the only correct one. Theorists of a certain impracticable sort insist upon calling the American College, even in its highest type, a *Gymnasium*, but there is absolutely no ground for the assertion. Plenty of work that in Germany is relegated to the University is done in the American College. The truth is that the German educational organization is radically different from ours, and while we have learned and are learning much from European experience, our own system is a highly efficient and rapidly improving one. With us the Elementary School, the High School, and the College divide among them the work of the *Gymnasium*; the College and the University, again, divide the work of the German University. Our system is the more mobile, the more diversified, and the better adapted

to our civilisation. The conclusion is, then, that we are doing genuine university work in America.—*Ed. Rev. N. Y.*

A Bulletin issued by the University Extension Division of the University of Chicago gives the details of a system of education by correspondence, whereby persons in any part of the country who desire to take up any branch of study can receive from the Correspondence Department of the University guidance and examination which will enable them to pursue such branches. This plan has been successful in European countries, and President Harper has done much to familiarize the American public with the idea. It seems to place an education within the reach of many who could not otherwise attain it, and while lacking some of the inspirational elements that come from contact with personal and present teachers, may yet do much to deepen and extend the educational spirit of the age.—*Ed. J. Boston.*

LITERARY.

The following new books relating to India have been published since our last issue.

Work and play in India and Kashmir by J. D. Gordon, Eden, Remington & Co., 3s. 6d. *Bhagavad Gita*: a Sanskrit philosophical poem, translated, with notes, by John Davies. Trübner's Oriental Series, 6s. *The Speeches and Table talk of the Prophet Mohammad*, translated, with introduction and notes, by Stanley Lane-Poole, Golden Treasury Series. 2s. 6d. *Afghan poetry of the 17th century*, selected from the poems of Khush Hal Khan Khatak, with literal translations by C. E. Biddulph. 10s. 6d.

The Proprietor of the "Calcutta Review" has issued the prospectus of a second series of selections from the articles in the back numbers of the journal, similar to his former republication from the first fifty volumes. The prospectus shows that most of the papers have been contributed by able writers of Indian experience. The reader of the series is sure to derive much and valuable information on a variety of subjects, mostly Indian, on religion, philosophy, literature, science, commerce, history, etc. It is a record of Indian thought for the last twenty-two years and will prove a library in itself. The annual subscription for the series is very low.

Perchance some readers of the Journal may not know what a *Book-Plate* is. Most great collectors, not content with inscribing their names in their books, insert some more or less elaborate design, often their

arms heraldically displayed, occasionally some fantastic device. These are printed from an engraved plate and pasted inside the cover. Among the mass of societies there exists one for the collection and study of Book-plates, called the *Ex Libris* Society; the legend of the Book-plate being *Ex Libris A. B.*, meaning "This is one of the books of A. B." At the last annual Meeting the Chairman gave some interesting and unusual information as to the Book-plates that adorned the Gaelic tomes in the Garden of Eden. He, we are told, somewhat startled the meeting with the announcement that Adam bore arms, quoting from an old writer, Sylvanus Morgan (1661), in support of his theory. According to this writer, Adam bore a shield gules, with the arms of his wife (a shield argent) as an escutcheon of pretence, she being an heiress. Abel, he also tells us, quartered the arms of his father and mother, "ensigned with a crossier to show he was a shepherd." Another old authority tells us that Alexander the Great rejoiced in the possession of a book-plate.

Mr. S. Narayanaswamy Aiyar, B. A., of Kumbakonam College, has published a Tamil translation of Shakespeare's *Midsummer Night's Dream*. The book is written in an easy and colloquial style and will prove a source of pleasure to its readers, only if the names of the characters be replaced by some Indian ones. The author has translated some names, which make the book difficult to read; for instance, Bottom, Mustard seed, Pease-blossom, &c. Still, it is a good addition to Tamil literature. The author has dedicated it to Dr. Duncan. The translation is also being published in parts in the *Viveka Chintamani*.

Sir William Hunter's revision of his "Indian Empire" was completed a few weeks ago. For the purposes of revision, Sir William Hunter had much new material placed at his disposal by the India Office. For instance, he has had access to the Indian census returns of 1891, although these have not yet been given to the public. The administration reports of the twelve provinces of British India for 1891 have also furnished much valuable information. In a word, India and its enormous population, from the points of view of administration, economics, commerce, and history, are brought up to date in this work.

SCIENTIFIC.

Sometimes it is the Chancellor of the Exchequer that is interviewed, sometimes it is the President of the Board of Trade, and sometimes the President of the Committee of Council on Education, but in every case with the same result. Politicians of every shade and statesmen of all parties express sympathy with the object of the deputations which

wait on them to urge the necessity of reforming our system of weights and measures, but beyond that none of them will go. Like Sir William Harcourt, the other day, they are all ready with the stereotyped objection that the people of the country are not sufficiently well educated to accept the change. That the English people are not over-educated in any subject is unfortunately only too true, and that they are particularly ignorant of their own weights and measures, no one who gives the subject a moment's thought will deny; but it is equally true that this ignorance is not confined to the 'masses', as the Chancellor of the Exchequer seems to suggest, but is just as prevalent among the 'classes'. As a matter of fact, this imperfect acquaintance with the standards, which is so widespread and general, constitutes one of the strongest arguments which the advocates of reform can bring forward, arising as it does less from want of education or want of intelligence among the people than from the complexity which exists in the relations between the fundamental unit of length and the derived units of area and volume, the irregularity of the connection between the large and small units of the same nature, and similar causes. The French people are probably no better educated, certainly they are no better informed, than the English, but they are far better acquainted with the weights and measures of their country, and this must be attributed entirely to the great simplicity of the system they employ. Without exposing oneself to the charge of glorifying revolution, one may well envy the French nation some of the results of the great political upheaval of a century ago, not the least important or least beneficial of which is the simplest and most scientific system of weights and measures the world has ever seen.

But resort to so heroic an expedient as a revolution is not necessary in order to secure the abolition of an antiquated system of weights and measures. A simple legislative enactment has, on more than one occasion, proved sufficient. The North German Reichstag, at a memorable sitting held on the 15th June 1868, passed a law introducing the metric system into the states of the North German Confederation from the 1st January 1872, and rendering its use optional two years earlier. The consequence of this wise legislation is that the old systems of weights and measures, which were almost as numerous as the political division of the country, have practically disappeared, and one system prevails through the length and breadth of the German Empire. It is to reforms of this nature, simple yet far-reaching in their consequences, that the commercial progress of Germany, which is one of the most remarkable social and political features of the latter half of the century, is largely

198

due; and these reforms, the reform in question more than most others, were rendered possible by the magnificent system of state education which the country possesses. For years previously to its introduction the metric system was compulsorily taught in all schools, with the result that the people, as soon as its advantages became known to them, welcomed its introduction instead of opposing it. There can be little doubt that were the same course pursued in England and in India, the same result would follow.

It is not easy to understand exactly what the opponents of reform mean by their objection "that the people of the country are not sufficiently well educated to accept the change". If it is meant that the standard of education is too low for the masses of the people to understand or become acquainted with the metric system of weights and measures, the answer is that it is far more simple than the English system and can be taught in a minute fraction of the time which the latter requires for its acquisition; and if they can learn one system, *a fortiori* they can learn the other. But if it is meant that the prevailing ignorance of the metric system is a bar to its adoption, the remedy for this state of affairs is obvious. The system has only to be introduced and compulsorily taught in all schools, and in a very small number of years it would become so generally known that any objection to its introduction based on this ground would disappear.

Unfortunately, this simple and natural method of paving the way for reform, is just the very one which educational authorities and the legislature both in England and India refuse to adopt. The former discourage the teaching of the metric system, or at all events do nothing to encourage it, on the ground that it is useless to teach weights and measures which are not current; whilst the latter refuses to introduce a system with which the people are unacquainted. No doubt the legislature is right in refusing to compel the people to abandon a system they are accustomed to for one which, though immeasurably superior, they know nothing about; but if its attitude is correct, it makes that of the educational authorities all the more indefensible. For if the legislature waits for them to take action, and they persist in their policy of inaction, it is obvious that all reform will be indefinitely postponed. It is the educational authorities, apparently, that require coercion, and it is the legislature which must coerce them.

But if the average Englishman's mind is somewhat hazy where weights and measures are concerned, it is not because the average

English boy does not devote much time and trouble to learning them. The process usually involves great tribulation, and it is a pity that the result is not more commensurate with the cost. The lot of the English schoolboy who has to wade through avoirdupois weight and troy weight and apothecaries' weight, and lineal and square and liquid and dry measure, and Heaven only knows how many others, is not an enviable one, but that of his Indian counterpart is still more deplorable. This luckless youth is supposed to learn all the English weights and measures, and also to commit to memory the still more numerous and equally unsystematic quantities used in his own country—to make himself acquainted with tolas, pollams, seers, visses, maunds, and candies; to become familiar with ollocks, markals, and garces; to understand grounds and cawnies; and as if this were not enough, to know the relations between the standards of both countries. Of course not one boy in a thousand ever learns all this, but every boy spends a large amount of time which might be for more profitably employed in the endeavour to do so.

It is thus evident that, if there is a country in the world where the multiplicity and complexity of the weights and measures in use makes the adoption of the metric system desirable, it is India; and yet there is no country where so little has been done to facilitate its introduction. The Universities, which, one would think, ought to take the lead in a matter of this kind, have done nothing, and the little that has been done by the Educational Department scarcely deserves mention. It is true that for many years the metric system was included in the syllabus in Arithmetic for the entrance examination of the Madras University, and an outsider, noticing this provision, would naturally jump to the conclusion that the University was doing all that lay in its power to diffuse among the people a knowledge of the system and its manifold advantages over all other systems. But that same outsider would alter his opinion if he took the trouble to consult the question papers set for the examination. He would find to his astonishment that only once since the foundation of the University, in the year 1859, has any question bearing on the metric system, and that very remotely, been set. This being the case, nothing was lost when a few years ago, on the syllabus being revised, the metric system was excluded. Its insertion did no good; acquaintance with it never being required by examiners, it was never taught in schools; consequently its omission, in a sense, did no harm. But it is exasperating to reflect that, if the University had done its duty by making examiners do theirs, the difficulty of introducing the system would by this time have enormously diminished; for it is hard to believe that after five and thirty years spent in familiarizing the people with its

advantages, we should have occasion to lament the impossibility of introducing the system owing to their ignorance of its details and its merits.

The University of Bombay falls under the same condemnation as that of Madras, and the Calcutta University under a still severer one. In the year 1862 a question was set for the Matriculation examination of the former University which, though it went no further, proves that the examiners knew of the existence of the metric system, whereas, so far as the latter is concerned, the metric system might not have been invented.

It may be urged with much truth that in a matter of this kind India must wait on England, and that the introduction of the metric system into Great Britain must precede its adoption by that country's great dependency. Admitting this to be so, signs are not wanting that even in England, the reform cannot be much longer delayed. Within a century of its invention, the metric system has been adopted by at least one half of the civilized world, and it is safe to predict that before another period of half that length has expired the metric system will be universally employed; and the various systems which at the present day perplex and irritate humanity possess none but an antiquarian interest. It may be prophesied with equal certainty that the English people will be the last to abandon the weights and measures of their forefathers, and that one of the last arguments wherewith to combat reform will be "that the people of India are not sufficiently well educated to accept the change".

The metric system was legalized in England so far back as 1864, and, needless to state, its use has been made optional over nearly the whole globe, while outside the British Empire, almost the only country of the first rank, if we exclude Asia, in which its employment has not been made compulsory, is the United States of America. In that country, the dislike for change and contempt for everything of foreign origin which characterize the English race in every clime have, doubtless, operated to give the system of weights and measures imported from the mother country a longer lease of life than it otherwise would have enjoyed; but on the west of the Atlantic the feeling in favour of reform is even stronger and more widespread than on the east, and there seems every reason for believing that while the twentieth century is still in its infancy, the whole of the New World will be using the same weights and measures.

Of the many disadvantages arising from a diversity of systems of weights and measures, the restrictions and inconveniences which

are imposed on international trade and commerce is one of the most important. The consular agents of England and the United States are constantly pointing out how serious these disadvantages are and suggesting reform. Numerous instances might be cited but the following passage from the latest United States consular reports will suffice:—"A consideration of the commercial advantages arising from the use of the metric system in our foreign commerce suggests the conclusion that our old English weights and measures are stumbling blocks to our Latin neighbours whose commerce we seek. We annually lose considerable trade with Mexico and the other New World nations, owing to the persistent use by our merchants and manufacturers of the English weights and measures in their circulars, catalogues, and price lists. These lists are not infrequently unintelligible to the foreign buyer. I have been in large exporting houses in New York city and found the salesmen totally ignorant of meters, kilograms, &c., Our French, German, and Belgian competitors all use the metric system, and Mexico and all the nations of the New World south of us use it. The use of the metric system was authorised by our laws many years ago, but as it was not compulsory we still cling to the old system." W. H. W.

INDIAN STUDENTS IN ENGLAND.

Ali Ahmed Husanally, Inner Temple. Dady Hormusjee Dadah-boy, Gurdas Ram Sawhny, W. A. N. Battenburgh of Madras University, Satchida Nanda Sinha, Parmanand Mahanand Bhatt, F.R.C., L.R.C. Inst. John Asirvadhun David of Madras University, were called to the Bar on January 26th, in addition to those mentioned in our February number.

Naroji Beramji Darabesth, M. D., Grant Medical College, Bombay, and Aberdeen University, has been admitted a member of the Royal College of Surgeons of England. In Trinity College, Dublin, on February 14th, the degrees of B.A. and LL.B., were conferred on Prabh Dial, B.A., Cambridge. He also passed the LL.D. (Doctor of Laws) Examination with distinction, standing second in the list. The latter degree will be conferred in his absence. The degree of Doctor of Medicine was conferred on the same occasion on Aulad Ali.

Miss Nalini H. Bonnerjee, Bedford College, London, has passed in the 2nd Division of the Preliminary Scientific (M.B.) Examination of the University of London. Mr. Jnanandiah Nath Roy has passed the Matriculation Examination of the University of London in the 1st Division and Mr. Byramjee R. Mehta, in the 2nd.—*Indian Magazine and Review.*

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The Editor begs to remind all LITERARY correspondents, as well as publishers forwarding books, magazines, etc., for review, that, to ensure attention, they should be addressed to him at PACHAIYAPPA'S COLLEGE, MADRAS; and, for publication in the succeeding issue, should reach him not later than the 20th of each month. All BUSINESS communications should be addressed to the Publisher.

EDITORIAL NOTES.

It is not exhilarating to be in advance of one's age. The reformer before his time is not exactly the career one would recommend to a sane, healthy, and moderately ambitious youth, and yet the world is full of such unrecognised and unhonoured prophets. How often do we find changes being made and innovations introduced as a mere matter of course and with great laudations of the instrument of them, which but a few short years before were hooted down as preposterous and revolutionary, while their original proposer, with all the go and interest crushed out of him, looks grimly on and smiles—or weeps, if he be made that way.

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We are induced to these observations by coming across a bundle of ancient papers, dating as far back indeed as 1882-3, relating to proposals to institute a convocation of graduates of the University of Madras, and in connection therewith granting them the right to send up annually to Government the names of three graduates, one of whom might be nominated by his Excellency as a Fellow of the University. We know that now each University has acquired the right to recommend not one but two Fellows annually, and with

such case, that it seems quite a matter of course. Yet the idea was considered terribly revolutionary when proposed by Dr. W. H. Wilson in a letter addressed to the Registrar on 1st February 1882. As the result of the letter a Committee was appointed, consisting of Messrs. Muthuswami Aiyar, Thompson, Miller, Bashyam Aiyangar, and Wilson; and this Committee, *mirabile dictu*, agreed to recommend to the Senate, *inter alia*, "that the Association (of graduates) should be entitled to annually recommend three of its members, one of whom the Governor-in-Council shall be requested (subject to his Excellency's approval of the names submitted) to select for appointment as Fellow of the University." We do not know how the committee was brought to agree to this; possibly, as the late Mr. Thompson was absent, Dr. Wilson managed to hypnotise the remaining members. The dose was too strong for the Senate, however. In March 1883, that body decided that it was desirable to institute a Convocation of graduates as a "consultative and advising body" only. It passed also resolutions and appointed a committee to draft a Bill thereon; but from Resolutions and Bill alike the power of electing Fellows disappears. The Draft Bill was printed—and it is a Draft to this day.

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Now the election of Fellows is recognised as the most reasonable thing in the world—but what about Dr. W. H. Wilson? Does he smile or weep? Let those that know him speak.

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Some of the contents of this present number of the Journal may be alluded to here. The question of School Libraries has always been a difficult one. It is a constant desire on the part of teachers and all connected with Education to create and develop a taste for general reading among pupils. The difficulty lies in discovering what literary pabulum may be put before them with the greatest prospect of success. The libraries must in the nature of things be small, which immensely increases the difficulty of selection. Books for boys should interest and amuse yet not demoralize; should inform and instruct without being dogmatic or dry. Our London contemporary *The Schoolmaster* recently contained a list compiled with great care and corrected by several well-known authorities. Many of the books, especially in the department of fiction, are unsuited for an Indian School Library; while others are too expensive, or may be dispensed with for other reasons.

141

We have therefore made a careful selection from our contemporary's list and trust the one we publish will be found widely useful. The prices are the English published prices, less the usual discount of 25 per cent. If every shilling in the list be taken as equal to 14 as., a close approximation will be got to the cost in India, at the present rate of exchange.

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We commence in this month a symposium on a very important question. The three gentlemen who write have had great experience of Middle and High School classes, and their opinions are therefore those of practical men. Now that the subject is started we shall be glad to continue the symposium in our next number and therefore we invite contributions, for which we shall endeavour to find space. We must, however, beg writers to be concise, and shall give preference to the opinions of experienced teachers.

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We also commence the publication of a complete set of the papers on commercial subjects set at the last Technical Examinations of the Government of Madras. Commercial instruction has been making slow but very sure progress in India. In Madras we have been groping and stumbling along since January 1886, making many slips, but *never going back*. At last we have emerged into the light, and we believe the scheme of Commercial Examinations, as now reorganised, to be as complete as any in the world. Experts will be able to say at once whether the papers herein reprinted represent a real or a sham standard of efficiency; and being the first prepared under the new scheme they will, we hope, be found generally useful. N. B. Know all men—and especially those who, having nothing else to do, spend their time writing letters to the Editor—by these presents that for the thousand and first time we make oath and declare, that we do not believe or expect, or wish any one to believe or expect, that the passing of all or any of these examinations will turn any youth whatsoever into an experienced and able man of business, or will enable him to dispense with the practical training of an office; but we do assert that such passing will enable him to learn his business much more quickly and will make him of, at least, *some use* in office from the day he enters it.

To show the increasing popularity of these Examinations we give the numbers entered for the more important. *Book-keeping*, El. 80; *Inter.* 129; *Commercial Correspondence*, El. 89; *Inter.* 73; *Commercial Geography*, El. 26; *Shorthand*, El. 19; *Inter.* 10.

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On another page we publish a letter from the Reviewer of Mr. Lakshmi Narasu Nayudu's book in our last issue; and to that letter we have little to add. The Reviewer correctly states the proper course for the author to adopt, consistently with journalistic custom and etiquette. Mr. Lakshmi Narasu cannot plead ignorance of this, for he has been informed of it by the Editor. Instead of himself endeavouring to meet the criticism of the Reviewer, he in the first place, requested the insertion of some extracts from a review of his work that appeared in another Journal and of the opinion of a private gentleman in Madras. This request being ruled inadmissible, and his remedy pointed out to him, he modestly demands the insertion of a pamphlet of thirteen pages by a third and irresponsible party. To grant this is equally out of the question. We have been—and trust we always shall be—desirous of being perfectly fair and extending a hearing to all parties in our reviewing as in our general pages; but where anyone feels aggrieved, he must seek the redress he desires by constitutional methods. If Mr. Lakshmi Narasu's ideas of the duties of an Editor were to obtain, it would be impossible to conduct any public journal at all.

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With reference to this pamphlet we desire to allude to only one point. The pamphlet has apparently been widely circulated, and absolute silence on our part might be misconstrued. We allude to the wholly unwarrantable accusation made in the following sentences. After a ridiculous charge of interested partiality, the writer proceeds:—

“Again, the racial distinction of *black* and *white* seems to have much to do with the assignment of merit. Any work coming from the pen of a white man, however worthless it may be, is reviewed in the most glowing terms and succeeds in becoming a standard text-book in schools under the sanction of the educational authorities. On the other hand, when a book is written by a native, it is decried as of no value and full of defects, whatever intrinsic merit it may possess. The European is held up to public

14/1/14

admiration as possessed of genius for originality and research, whereas the Indian is looked down upon as possessing not a particle of originality.”

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We feel we are not speaking a whit too strongly in characterising such a charge, when made against this Journal and its Editor, as grossly impertinent. Of ourselves we say nothing, leaving our readers to pass the verdict, but this, that we have sadly failed in all we attempted and been monstrously imposed upon by our friends, if, on quitting India after nearly nine years stay in it we leave behind us a reputation in any way approaching that attributed to us by the pamphleteer. With reference to the Journal, we can refer to its whole past history. It would never have attained and maintained its present reputation had it pandered to racial prejudices as alleged. No proof can be adduced in favour of the charge; abundance is at hand to rebut it. A reference to our back volumes will show a constant series of unfavourable criticisms of books written by Englishmen. We may refer to two examples. Before our pamphleteer had passed his Matriculation Examination there appeared in the *Journal* what was generally characterised as perhaps the severest review ever published in India. There was some talk of legal proceedings against the *Journal*, but it ended in a revised and improved Edition of the work being issued. The authors of that work were English graduates holding high positions in the Government Educational service in a sister Presidency, and in that review it was distinctly stated—and previous statements of the *Journal* for many years before were referred to—that the conductors felt it a doubly incumbent duty to criticise unfavourably bad books written by Englishmen, as otherwise a false standard of excellence would be put before intending authors in this country. To come to our own régime, if any reader will turn back to our review of Dr. Kellner's “*Historical Outlines of English Syntax*” in our March Number, or of Mr. Macaulay's “*Notes on Tennyson*” in that for April, he will see that we can criticise books by non-Indians as severely as they deserve, without fear or favour. The work of the Editor of this *Journal* is far too responsible and onerous to be executed in the fashion that seems natural to the jaundiced vision of Mr. Lakshmi Narasu's champion.

It is with the deepest regret we have to close these notes with the intimation that they will be the last, for a time at least, spoken from the Editor's chair by its present occupant. Little did he think when, three months ago, he first seated himself therein that, ere almost he had time to settle down to work, the whirligig of Eastern change—urgent private affairs, furlough, and what not—would drive him from these shores for so long a period that no mere temporary occupant would suffice to carry on the work during the interval. He hopes, however, not to lose touch of his old readers and friends, and will endeavour, with the kind permission of an indulgent Editor, to furnish in the guise of a London Letter, such news as he may deem likely to inform and amuse from the great centre of literature and learning.

* * * *

And there is one consoling thought. The torch is not dropped but passed on to thoroughly efficient hands. The new Editor's trenchant pen is not unknown to readers of the Journal; and we have no doubt that, while imbuing it with a large measure of his own indefatigable and ardent personality, he will respect piously its old traditions and maintain nobly its standard of fairness and freedom.

OPENING OF A NEW COLLEGE.

The new Building of the American Evangelical Lutheran Mission College at Guntur was opened by His Excellency the Governor of Madras, in the course of his recent tour to the Northern Circars. On that occasion the following speech was delivered by Dr. Duncan, Director of Public Instruction.

YOUR EXCELLENCY, MR. WOLF, LADIES AND GENTLEMEN:

When the Principal invited me to be present on this occasion and to make a speech, he was good enough to provide me with a text. Now to be furnished with a text is both an advantage and a disadvantage to a speaker. It is advantageous in so far as it saves him the trouble of racking his brains for something to speak about. It is disadvantageous in as much as it is apt to clip the wings of fancy; at other times it prevents the speaker from giving his audience the benefit of his best thoughts; and, worst of all, it not unfrequently forces him to speak of things of which he knows nothing or next to nothing.

The text provided for me, ladies and gentlemen, is "Education and Progress", and I mean to use it so as to reap as many of the advantages and as few of the disadvantages of a prescribed text as I can. Mr. Wolf will bear me out when I say that it is recognized as a legitimate procedure in the ecclesiastical profession to use a text in this way. One may make a brief reference to it at the outset, introduce it dexterously at the very end, and ignore it or give it the most liberal interpretation in the body of the discourse. Some such course, ladies and gentlemen, I propose to follow on the present occasion.

The progress of this institution is known to most of you. Opened first as a small school in 1848, closed for a time in consequence of troubles in the United States of America; opened as a High School in 1874; and raised to the rank of a Second Grade College in 1886. It is not, therefore, a mushroom growth, here to-day and gone to-morrow; but one of the old-established and permanent institutions of your town. The building in which this school began its career some fifty years ago is still standing, and I would ask for no more striking proof of the substantial progress that has been made than to place that wretched hovel side by side with the magnificent building in which we are now assembled.

I wonder how many of the inhabitants of this town and district have asked themselves the question—what are the ways and means by which an educational establishment like this is carried on. Parents complain that fees are high, but they do not consider what it costs to maintain a school and college in a state of efficiency. As in duty bound, I am an attentive reader of all the addresses which His Excellency the Governor receives on his tours; and it seems to me that in educational as well as in other matters His Excellency is expected, by a mere wave of the magician's wand, to get things done for nothing. This institution, you may rest assured, is not carried on on such easy terms. For the year ending 31st March 1892, the expenditure in this College was, Rs. 10,735, the fee receipts were, Rs. 2,053, leaving Rs. 8,682 to be borne by the mission. In other words the parents of the young people educated here pay less than one-fifth of the cost of their children's schooling. It cannot be said that they have been paying indirectly for the up-keep of this school and college in the form of grants from public funds levied from the tax-payer. For during nearly half a century, this institution was carried on without any aid from Government; not because Government refused to give a helping hand, but because, for various reasons best known to themselves, those in charge never applied for help.

Do not suppose for a moment that I am finding fault with the managers of this institution for their self-denial. There is an impression

in some quarters that the Director of Public Instruction does not look with favour on schools that do not ask for aid, that the privileges of recognition and inspection will not be granted at all to unaided schools, or will be granted only in a grudging spirit. Nothing could be further from the truth than the impression that the Educational Department looks with disfavour on self-supporting schools. They are the very schools we wish to see multiplied, and one of the points we always keep in view in giving aid is to give it only until such time as the school is strong enough to be carried on efficiently from its own resources.

Up to 1890 this institution was carried on without financial aid from Government. About that time Mr. Wolf conceived the idea of erecting this building to accommodate the increasing number of pupils and to be an ornament to the town of Guntur. In casting about for the funds wherewith to carry out this work Mr. Wolf's resolution to have nothing to do with Government money appears to have been somewhat shaken. His American friends had come to his aid most generously, contributing between Rs. 60,000 and Rs. 65,000—nearly one-half of this amount having been given by Mr. Watts of Baltimore, in memory of a deceased son. Rs. 65,000 would, however, meet only about two-thirds of the cost. Where was the balance to come from? At this juncture Mr. Wolf cast a longing eye on the one-third grant under the provisions of the Grant-in-aid Code. At length he summoned courage to ask for it, basing his request on grounds which could not be set aside—that his mission had worked here unaided for about 50 years for the good of the subjects of the Queen-Empress. To this appeal Government responded by promising a grant of Rs. 22,500, of which sum about three-fourths have already been paid.

On the occasion of laying the foundation stone of this building your former Collector, Mr. Arundel, made reference to the help which America was so generously giving to England in promoting the material and moral progress, and, as a consequence, the good government, of this ancient land. The grant which Government has given is a proof that it is not insensible to the value of this help. And I think we may look upon the presence to-day of His Excellency Lord Wenlock as a token of his high appreciation of the work which this College is doing in the Kistna district. The appointment of Mr. Wolf to be a Fellow of the Madras University, which has just been announced also shows how fully alive His Excellency is to the valuable services rendered by Mr. Wolf personally in bringing this college to the prosperous condition in which we see it to-day. The American Evangelical Lutheran Mission spends, I believe, at least a lakh of rupees a year for the good of the people of the Kistna district. Think of this, ladies and gentlemen. It may be

said, and sometimes is said, that Englishmen have interested motives in striving to promote the welfare of the people of this country. But this cannot be said of Americans, Germans, Frenchmen, Danes, and others, who freely give of their money and of the health and strength of their sons and daughters for the up-lifting of India. I often wish that the leaders of the Native community—leaving the religious aspect of the matter, if they please, altogether out of account—would bring the self-sacrifice involved in the purely secular aspect of mission work prominently and persistently before their fellow-countrymen. For it grieves me to have to say that the wealthy and the educated among Hindus and Muham-madans are not doing what they might do to remove the ignorance which spreads like a dark mantle over the face of this land. If from across the distant seas there come men and women ready to spend their money, their health and even their lives for the good of those who are neither their kith nor kin, and for whose welfare they have no responsibility such as Englishmen have, it ought surely to set the sons of India a-thinking whether they are doing all that they can to promote the well-being of those to whom they are bound by the ties of race, creed or country.

Material, intellectual and moral progress go hand in hand, and it is most fitting that the Kistna district, which under favouring physical conditions and wise administration, has in recent years been advancing so rapidly in material prosperity, should take equally long and rapid strides in the search for intellectual and moral good. The favourable auspices under which this building is opened to-day is an earnest that in this part of the Kistna district the things of the mind and heart will not be neglected.

Progress is an effect of many causes, and it is a mistake to think that real and lasting social advancement can be secured by ignoring one or more of these agencies, or by sacrificing some of them in order to bring the others into fuller operation. It is, I say, a mistake to think such a thing—a still greater mistake to act as if it were true. Heads of departments are peculiarly liable to fall into this error. Each is apt to think that the machinery which he controls is the most potent, if not the sole, factor in social improvement. The Engineer is apt to assume that everything will come right if irrigation canals, roads, railways, and railway bridges are constructed. The Medical and Sanitary Officer thinks that these and other matters should give way to the erection of hospitals and the carrying out of drainage and water supply schemes. Educational officers, including (I must confess it) the Director of Public Instruction in his less sober moments, proceed on the assumption that the root of all evil can be eradicated only by multiplying schools and colleges.

But, ladies and gentlemen, if real and abiding good is to be done everyone who is working for the bettering of man's estate should recognize that his way is only one among many ways of doing good. Be the means material or spiritual, sacred or secular, the workers must co-operate like the parts of a well-adjusted machine. The diverse agencies at work in society are the representatives of a beneficent power which is carrying India along paths the end of which lies far beyond the utmost ken of the most gifted of seers. But though the end be hid from us, the duty of each of us is plain. Each must do his allotted work as best he can, in friendly and generous recognition of the work which is being done by others.

Ladies and gentlemen, I shall not take up more of the short time at your disposal. To His Excellency Lord Wenlock and to the inhabitants of the Kistna district this will long be a memorable day: beginning with the opening of this building dedicated to learning and ending with the opening of that marvellous example of the power of mind over the mighty forces of nature—the Kistna bridge. Do not allow the imposing majesty of the one to shut out from our view the far-reaching significance of the other. But let us remember that the knowledge and skill which have helped to build the Kistna bridge had their beginning in schools or colleges similar to the one in whose honour we have assembled here to-day.

ON DETERMINING THE DAY OF THE WEEK FOR ANY DATE.

The following paper draws attention to a few devices for determining without an almanac the day of the week corresponding to any given date of a given month of a given year. Of the three rules that I give below, the first is of interest as being the earliest rule that was framed in England on the subject, on a suggestion of Prof. De Morgan in an article in the 'Penny Cyclopædia.' I presume that it will be preferred to the second rule which is shorter and easier to remember by such as like to save themselves the trouble of a little thinking. These two rules, however, require for their application the day of the week of the first day of the given year to be known. The third rule which Mr. W. W. Rouse Ball quotes (without proof) from the mathematical works of Prof. C. Zeller of Stockholm is free from this defect and will be found to be perfectly general in its application. I have no doubt that it will be of great interest and use to historical students, as it readily enables one to find the day of the week corresponding to any date of any month of any year of any century after Christ until about 4200 A.D.

1. If we prepare a table of the first day in each month which has the same name as the first of January, we find that

the 1st of January and of October,	} are of the same name.
the 2nd of April and of July,	
the 3rd of September and of December,	
the 4th of June,	
the 5th of February, March and November,	
the 6th of August,	
and the 7th of May,	

Thus, in the present year, the 1st of January being Sunday, all the days marked in the list are also Sundays. If now we are required to find the day of the week of any date of this year—say, of the Queen's birth-day (the 24th of May), we look at the list and learn that the 7th of May is Sunday. The 14th and then the 21st of May are also Sundays, and the Queen's birthday therefore falls on Wednesday.

The days given in the foregoing list have been connected together in the following rhyme which those that care may commit to memory:—

The first of October, you'll find if you try,
The second of April, as well as July,
The third of September, which rhymes to December,
The fourth day of June and no other remember,
The fifth of the leap-month, of March and November,
The sixth day of August and seventh of May,
Shew the first of the year in the name of the day.
But in leap-year, when the leap-month has duly been reckoned,
These months dates will shew, not the first but the second

2. Let us now prepare another table giving the day of the week corresponding to the first day of each month. We find that if

the 1st of January and of October,	be Sunday (call A)
the 1st of May	is Monday (call B)
the 1st of August	is Tuesday (call C)
the 1st of February and of March } and of November }	is Wednesday (call D)
the 1st of June	is Thursday (call E)
the 1st of September and of December	is Friday (call F)
the 1st of April and of July	is Saturday (call G)

Suppose we have now to determine the day of the week corresponding to the Christmas day (the 25th of December) of the present year. The first day of the current year being Sunday, the first of December is seen from the list to be Friday. Hence the 8th, the 15th and the 22nd of December are also Fridays, and the Christmas day therefore falls on Monday.

The information contained in the foregoing list can be readily obtained from the mnemonical lines,

"At Dover dwell George Brown Esquire,
Good Caleb Finch and David Fryer."

in which the first letter of each word is that belonging to the first day of each month in the order from January to December, the letters A, B, C, D, E, F and G standing respectively for Sunday, Monday, Tuesday, Wednesday, Thursday, Friday and Saturday. When the first day of January of any year is not A (Sunday), we have to count from A to the letter of the first day of January, and make the necessary allowance for the first date of the other months. A slight modification of the rule is also necessary for the months from March of leap-years.

3. The third rule takes the form of a proposition in Mathematics.

The p^{th} day of the q^{th} month of the year N anno Domini is the r^{th} day of the week, reckoned from Sunday, where r is the remainder obtained by dividing by 7 the expression

$$p + 2q + \frac{3q+3}{5} + N + \frac{N}{4} - \eta,$$

provided January and February are reckoned respectively as the 13th and 14th months of the preceding year; the value of η being given by the equation $\eta=0$ in the Old Style (or the Julian Calendar), and by $\eta = \frac{N}{100} - \frac{N}{400} - 2$ in the New Style (or the Gregorian Calendar).

Before we enter upon a discussion of the rationale of the rule, it will be well to illustrate its use by applying it to a few cases.

Example 1.—On what day of the week did the First Reformed Parliament meet (January 29th, 1833)?

Solution.—Since the month January of any year is to be taken as the 13th month of the previous year, we have $p=29$, $q=13$, $N=1832$, and $\eta=12$ (for this century.) And dividing

$$29 + 26 + 8 + 1832 + 458 - 12 \text{ by } 7,$$

we get 3 for remainder which shows that it was on a Tuesday that the First Reformed Parliament met.

Example 2.—Required to find the day of the week of the 'Gunpowder plot.'

Solution. As the old rhyme reminds us, the plot was fixed for the 5th of November, 1605, (Old Style.)

Here $p=5$, $q=11$, $N=1605$, and $\eta=0$.

And the remainder obtained by division by 7 of

$$5 + 22 + 7 + 1605 + 401 - 0$$

is 3, which means Tuesday.

The formula when simplified for the present century becomes

$$p + 2q + \frac{3}{5}(q+1) + N + \frac{1}{4}N - 12,$$

for countries that have adopted the Gregorian calendar, while for Russia, Greece and a few other small states of the Greek Church which still adhere to the Julian Calendar as also for England before September 2, 1752—the date of the introduction of the Gregorian Calendar in England—it will be

$$p + 2q + \frac{3}{5}(q+1) + N + \frac{1}{4}N.$$

It now remains for us to shew that the rule quoted above has all the accuracy of a theorem in Mathematics.

Proof. (i). The values of q and N remaining unchanged, the successive values of p must shew the days of the week in order, which they cannot fail to do as the remainders on division by 7 will increase gradually by unity. (ii) If p and N remain constant, for values of q from 3 to 14, the variable quantity $2\frac{3}{5}q + \frac{3}{5}$ takes the values of

$8\frac{3}{5}$; 11; $13\frac{3}{5}$; $16\frac{3}{5}$; $18\frac{3}{5}$; $21\frac{3}{5}$; 24; $26\frac{3}{5}$; $29\frac{3}{5}$; $31\frac{3}{5}$; $34\frac{3}{5}$ and 37.

When each of these numbers is subtracted from the one in advance of it (fractions being neglected in all these operations) and the remainder is added to 28, a multiple of 7, we find the results standing in the following order:—

31, 30, 31, 30, 31, 31, 30, 31, 30, 31, 31, 28

and representing thus the lengths of the months in order from March.

It may be noted that the last result 28 is obtained by subtracting 37 from $8+1$ (due to the next higher value of N) and adding a multiple of 7 to the remainder. That the months from April to January divide themselves into two sets of five months of 30, 31, 30, 31, 31 days in order will, with the explanation given above, suggest why $2\frac{3}{5}q + \frac{3}{5}$ has been taken as the variable for months.

(iii.) When p and q are invariable, the variable N shews that if the 1st of January of a common year be any day of the week the 1st day of the next year will be the next day of the week. This follows from the fact that the common year consists of 365 days and therefore begins and ends on the same day of the week. The variable $\frac{1}{4}N$ allows for the addition of one day in four years on account of the leap-year. The value of $\eta \left(= \frac{N}{100} - \frac{N}{400} - 2 \right)$ is based upon the facts (a) that, in the Gregorian Calendar, a year divisible by 100 is no leap-year unless it is also divisible by 400 and (b) that the Gregorian reform was an arrangement for the falling of the vernal equinox on the date (the 21st of March) on which it fell at the time of the Council of Nice in A. D. 325, for the celebration of the Church festivals on the proper days. The

date 325 A.D. is of use as explaining why n is 2 less than $\frac{N}{100} - \frac{N}{400}$.

It follows therefore that if the rule be true for any date—a matter easy of verification—it is true for any other date.

It may be added that the mathematical rule may be safely used for many centuries more as the difference of the length of the year as assumed by Pope Gregory XIII (365 days, 5 hours, 49 minutes, 12 seconds) and the true length_E (365 days, 5 hours, 48 minutes, 49.7 seconds) will lead to an error of only 1 day in about 4000 years.

S. RADHAKRISHNA AIYAR.

SYMPOSIUM.

AT WHAT STAGE SHOULD ENGLISH BE INTRODUCED INTO INDIAN SCHOOLS?

I. By A. E. DUCHESNE, B.A.,

Headmaster, Chengalvaraya Naicker's Commercial School.

This question is one which can by no means be answered off hand. We have to remember how different are the conditions obtaining in this country from those which govern the teaching of a foreign or classical language in England. There are differences not only in the circumstances of the pupil but also in the purpose to which English when acquired is intended to be put. I think that it would be generally conceded that there are two main ends served by the study of language. The more important in the case of English in this country is utility of employment and not the training to be derived during acquirement, though of course the latter must never be lost sight of. That is to say, the average Hindu boy learns English for the sake of acquiring so to speak a second mother tongue, a second medium of obtaining information and of imparting his own thoughts. We have therefore to consider what means will best enable him to acquire the language with facility, remember it with accuracy and employ it with fluency and readiness. In the case of many a public school-boy in England, after leaving the school, he forgets the classical lore, be it great or small in amount, which he acquired during his school life; but the habits of mind induced by the training which was involved in the acquisition of what would otherwise have been valueless remain with him, and are certainly an ample justification for the time spent on the dead languages. But we have in India to ensure that our students shall be able to read, write, and speak English in such a way as to hold their own against those to whom English is an inheritance, and not an acquirement. At the first outset, therefore, it would appear that the study of English for the native boy could not begin too early, and that it should go on *patri-*

passu with his vernacular. Experience shows that an extensive vocabulary and real dexterity in its use are best acquired by the almost insensible processes which govern the mental operations of early childhood. English children with a French *bonne* acquire at a very early age a bi-lingual dexterity which is in strong contrast to the average clumsiness of the Englishman's treatment of continental languages. If we could reproduce an exactly similar case here, no doubt the results would be the same, but we have to remember that the number of English educationists in the country is very limited, and is by no means capable of indefinite increase, whilst the native school-masters who have charge of primary education are necessarily very often distinguished rather by proneness to idiomatic error in such English as they may possess than by anything else, whilst a very large number of them are of course ignorant of the language altogether. It is very questionable then, whether any real advantage is gained by the introduction of English into a primary school curriculum except in those cases where properly qualified masters can be found to teach it. I have frequently myself heard the opinion expressed and certainly found it to coincide with my own experience, that the result of the average primary school work in English was not so much to prepare the ground for future planting as to sow a crop of weeds and abortions which required the utmost vigilance to uproot. On the other hand if English is to be introduced only in schools above the primary, there will be very little time to acquire a respectable mastery of all its complicated idioms before arriving at Matriculation or leaving school to enter on some business or office duty. However the matter may be arranged, the desideratum is that on completing their sixth form year boys should be able on the one hand to enter intelligently upon a course of University studies mainly to be pursued through the medium of English or on the other hand to have such a mastery of the language as will enable them to employ it in office and other duties if they do not pursue their studies to an academic conclusion. We have therefore to choose between two evils or rather perhaps imperfections, namely to sacrifice accuracy perhaps of pronunciation and certainly of idiom to fluency or to leave the study of the language till it may be safely embarked upon, at the risk of impairing the copiousness of the vocabulary and of interfering with the claims of other studies. Personally I think that the latter alternative is the preferable since on the whole ignorance is better than error, and it is productive of moral as well as mental mischief to allow our students to imagine that they have the mastery of a language, their acquaintance with which originated in imperfection and was continued in error.

I think, therefore, that except in cases where direct English influence can be exercised over the teaching, the study of English should not be commenced before the second form and should even there confine itself to the mechanical details connected with the alphabets written and spoken and if possible, though I have great doubt as to whether many second form teachers would be capable of doing even this, the machinery of voice production and the powers of letters. The third form might under intelligent supervision proceed much farther than this, and if taught largely in English will make a sufficiently rapid progress to enter with profit on the High School course.

I feel that I have really done little more than state the issues of the case, but something will have been gained, if I have done so with sufficient clearness and I certainly do not think that any one opinion can decide with sufficient authority on so complicated a matter.

II.—By T. R. RAMANADHA AIYAR, B.A., LL.T.,

*Superintendent of Vernacular Studies and Lecturer in History,
Pachaiyappa's College.*

In the present circumstances of India, considerable business has to be done in the English language, daily in the general administrative and mercantile occupations. The numerous vernacular languages do not promise to spread over the whole of India, so much as the English language does, nor do they possess literature enough to afford the varied humanizing culture characterizing western nations. In whatever direction the future advancement of India might proceed, if it should at the remotest time fail to include in her sons an affectionate and intimate intercourse with the English people and a loving and abiding interest in and knowledge of English literature, the Indian nation would then fall self-condemned and degraded. The vernacular languages do not shew signs of decrepitude and, with encouragement, might have a bright career.

To learn English, however, is not so essential for Indian girls as for Indian boys. For many centuries yet, while Indian mothers continue employed, mainly in domestic concerns, while the prospect of Indian mothers employing themselves in learned professions and pursuits is distant, Indian girls need not aspire to learning English. If solitary girls, from individual tastes and from commanding the means choose to indulge themselves in acquiring the English tongue and reading English authors, it would be just to honor them, but their preferences would be no reason for including instruction in the English Language to native girls in a scheme of national education. Under the

rules in force in the Madras Presidency for grant-in-aid, native girls may be presented as well as their brothers for result-grant in the English Language also in their Primary and Secondary courses: I consider this provision to be an error. I know that suitable text books written in vernacular languages are wanting. The Education Commission point out at page 534 of their Report:

"Little seems to have been done in the way of preparing special text books for use in girls' schools."

"It appears on the whole that the scheme of study in girls' schools has been formed too much on the model of that for boys."

No attempt has been made to supply this desideratum. Nevertheless this circumstance does not furnish arguments in favor of imparting instruction to native girls in the English language.

Evidently in India, instruction in the English Language should be confined to boys. Hence the question proposed at the outset has to be put in the following form, At what stage in the progress of the school-boy may the study of the English Language be commenced?

In early years, distraction of mind has to be avoided. Languages are merely media to instruction. There is no innate virtue in their acquisition by itself. Little ones set to learn different alphabets at the same time are bewildered to find the same articulate sound denoted in different ways in the alphabets which they are learning. In Arithmetic and Geometry, in general knowledge or non-language subjects, the matter to be mastered consists in the particularity of conditions supposed, which is fully realized only in the mother tongue and which fails to impress strongly when it is conveyed in a foreign language. Books in the vernacular, written by competent scholars, are read with zest and intelligence. These are reasons for organizing instruction in Primary and Secondary courses as much on a vernacular basis as possible.

On the other hand, if advantage is not taken of early years to impart correct accents and pronunciation and to store words, all which are difficult processes in a foreign language, a golden opportunity would be lost. Studying the English language in interesting popular Readers would not amount to a serious distraction, if a course through these readers is accompanied by reciprocal translation and by oral teaching on the general principles of English grammar. To study two languages is even necessary for grasping the principles that govern the mother tongue.

These two opposite sets of considerations lead naturally to the compromise that, in early years, from the 7th to the 14th year of the learner, during the stages departmentally called Primary and Lower Secondary courses, schools should follow a curriculum, providing instruction through the medium of vernacular languages, in all non-language sub-

jects, and including, as to English, a course of English Readers, accompanied by lessons in reciprocal translation and in English and Vernacular Composition and by oral teaching on the important principles of English grammar, formal instruction in the last mentioned subject being postponed to the High School or Upper Secondary course. Dr. Bain, having in view the curriculum obtaining in Great Britain, writes.—

“Taking English grammar as a whole, easy and difficult parts together, I venture to think that it cannot be effectively taught to the mass before 10 years of age,” that is, in the terminology of Indian Education, before the Secondary instruction course.

“The last years of the Primary schooling, from 10 to 13, would contain a systematic course of physical and social science, with English Composition and Literature, to continue which would be the main task of the 3 or 4 years, making up the secondary course”.

To summarize:

- (1.) The English language need not be taught to native girls.
- (2.) The English Language may be taught to native boys, from the first standard class upwards, as is now the case, provided formal instruction in English Grammar is postponed to the High school course, provided all non-language subjects are conveyed through vernacular media in the Primary and Lower Secondary courses, provided high attainments in the vernacular languages are secured before learners enter upon the High school or Upper Secondary course. The curriculum prescribed by the Madras Government allows at present non-language subjects to be brought up in English or Vernacular, but I am of opinion that native pupils should be compelled on to bring up non-language subjects in the vernacular languages in the Primary and Lower Secondary courses.

(3.) To have non-language subjects taught by means of text books in the vernacular is more practicable in the Mofussil schools than in those of Presidency cities where on the ground of economy, boys taking different vernaculars are placed under the same English Tutor for instruction in non-language subjects and in the English language, and at the hour set apart for instruction in the vernacular language the boys go to a separate set of teachers called Pandits. This arrangement has obvious defects and requires non-language subjects to be learnt by means of text books written in the English language. It is not easy to dispense with this arrangement. I think, however, that a strong School Board in Metropolitan Towns, bringing out suitable text books and agreeing to a rational syllabus of text books, with allowances here and there in favour of the special requirements of individual schools, will be really a boon and make the city school-classes exemplary, instead of being the reverse as at present.

III.—By RAO BAHADUR S. APPU SASTRI, B.A., Headmaster, Native High School, Kumbakonam.

With regard to the question at what stage should the teaching of English be introduced in English schools, I have to observe that it should be introduced in English schools, only at the time when boys reading in schools are placed in a position to make out the meanings of simple sentences composed of words connected with domestic life, the familiar objects of sense, the strong natural feelings, &c., in their own vernaculars. Such a knowledge can be acquired only by boys undergoing regular and systematic training in Primary schools, in the course of two or three years after they are put to school formally in Hindu households. This ceremony of putting boys to school is a solemn and even sacred one—the significance of which can be understood only by those who are conversant with the peculiar customs and usages that obtain among the people of India. This is generally celebrated when boys reach their sixth or seventh year—that period of life, when ‘the buoyant spirit of childhood’ has to be repressed during the tedious hours of discipline, when restraint is not at all liked, and when there is no real, active desire to learn. At this stage progress is necessarily slow, and if due circumspection is exercised, they may be made, in the course of two or three years, to learn something, and acquire a decent knowledge of their vernaculars, through which alone instruction in a second language can be imparted. Two or three years of regular training in well-organised schools will qualify boys to receive elementary instruction in English—a language whose grammar, idiom, construction are so entirely different from their own.

I would therefore advocate the introduction of the teaching of English in Indian schools only at the stage when boys have completed the courses of study prescribed for the 1st and 2nd standards of the Madras Educational Rules and have qualified themselves for the 3rd standard.

The introduction of it in the lower standards, such as the first and the second, will not only prove detrimental to boys, but will also be injurious to the interests of primary education generally. The policy of imparting instruction to children in English, a foreign language, a little too early is sure to retard the progress, and to check the healthy growth of primary education.

Again, in the interests of the welfare of the country, it is desirable and necessary that the Primary Schools in which English is taught as a second language and in the 3rd and 4th standards, should not be regarded departmentally as English Schools, and classified as such; for in English Schools, boys have to bring up English as their first language,

in which case they will have to answer questions on the meaning and subject-matter of the portions studied in those standards. Answering questions on the subject-matter is no easy task, and implies a knowledge of the English language which cannot be acquired in the short space of two or three years. In the 3rd and 4th standards, boys are not able to write a few simple sentences containing an ordinary idea even in *their own vernacular*, and answer questions on the subject-matter, though they have been regularly learning that language in a school for 3 or 4 years. If this is so, in the case of their own vernaculars, how can they be expected to join together correctly words into sentences, and answer questions on the subject-matter in *English* which they have been learning for a much shorter period?

As boys generally think through their vernaculars, a good knowledge of the vernaculars is absolutely necessary to enable them to understand English. It is my firm conviction strengthened by experience and reflection, that if the learning of such a difficult language is forced on boys before they have acquired a fair knowledge of their own vernaculars before they have reached their 8th or 9th year, the result will be *over-education*, the pernicious consequences of which are too well known to all. Boys will have little time for healthful and recreative exercises; for in their anxiety to prepare the lessons and pass the examination they disregard physical exercise; whereas they must have more of locomotion and less of work.

It is said of the English boy that 'all work and no play makes him a dull boy.' It will be true to say, in the case of the Hindu boy, that all work and no play makes him a feeble boy. The high-pressure methods of imparting instruction combined with the disregard for physical health, produce the most mischievous consequences. Herbert Spencer says—"This over-education is vicious in every way; vicious as giving knowledge which will be soon forgotten; vicious as producing a disgust for knowledge; vicious as neglecting that organisation of knowledge which is more important than its acquisition; vicious as weakening or destroying that energy without which a trained intellect is useless; vicious as entailing that ill-health for which even success would not compensate and which makes failure doubly bitter."

In conclusion, I would strongly advocate the introduction of English teaching only in the 3rd standard, and not in the lower standards, if Primary Education is really to be a blessing and not a curse. I would also, in the present state of Primary Education, strongly advocate the principle of making the study of English in the 3rd and 4th standards and of bringing up *English* as the first language even in *English* Schools, optional and not compulsory.

THE MEMORY IN EDUCATION.

By GEORGE T. W. PATRICK IN THE *New York Educational Review*.

For the sake of the argument to follow, I may venture to summarize the "new education" as follows. It insists on the training of the senses. It cultivates the powers of observation and discrimination. It studies the individuality of the pupil and encourages originality and spontaneity. It favors experiment and the use of the inductive and synthetic methods. It trains rather than instructs. It avoids symbols, preferring the real. A pedagogically inspired man of the last century, Jean Jacques Rousseau, popularized these principles and showed how to use them. By Pestalozzi and Froebel they were reduced to a method, which has grown steadily in favor to the present day. They are the educational correlatives of research, invention, progress, science. To repudiate them would be to ally one's self with the dry, dogmatic, memorizing methods of the Jesuit schools of the last century.

No world-moving reform in religion or morals equals this reform in education. Like all reforms, it came as a reaction. The educational method which it aimed to supplant was essentially *instruction in form*. It offered to the pupil finished results in language-form. Its receptive instrument was the memory. The formal memory was therefore well developed. When the Reformation came, it happened, in education as in religion, that the good was cast out with the bad. Memory-training, standing as it did for conservatism, for mechanical, superficial education, received its full share of odium. Montaigne's *Savoir par cœur n'est pas savoir* furnished the text for future decriers, and subsequent writers have cast every man his stone at the unfruitful practice of training the memory. Locke said that memory, not being a faculty of the mind, could not be improved by exercise. Children, according to Rousseau, "really have no memory," and "*Emile* shall never learn anything by heart." According to Kant, those with memory alone are but "living lexicons", "pack-horses of Parnassus," and the function of memory is to serve as handmaiden to the judgment. The crusade thus begun has to the present day been carried zealously on by almost every writer on the theory of education. It is needless to multiply quotations in condemnation of the memory-method. A single sentence only of a great American educator may be quoted. In his preface to Mr. Kay's book on Memory, where, if anywhere, one would expect some more hopeful words, Dr. William T. Harris says, "Memory is moribund, and in province after province it is losing its importance".

It has not been enough to condemn memory-training in education; it has even been doubted whether memory itself is of any especial value. Again a French motto serves as a text: *Beaucoup de mémoire, peu de jugement*. This error, traceable to Joseph Scaliger, refuted by every psychologist since Sir William Hamilton, has nevertheless persisted in the popular mind. It is supported by the stock instances of the mathematical prodigies and the memory idiots. In an age prizing so highly independence of thought, no one hesitates between memory and judgment. So little is the retentive power valued that one may hear a person confess, without apparent shame, to a poor memory, who would rather die than acknowledge poor judgment.

Thus it has come about in educational circles that memory—training has been generally ignored or passed over with slight, patronizing attention. In our pedagogical literature little is found relating to memory, and in our schools little interest in the subject is shown. One finds here no knowledge of the psychology of memory, little attention to methods of training it, no distinction of the different sense-memories, no advantage taken of natural differences of eye and ear-memory in different pupils. Some justification of this neglect is found in the extremely conservative character of schools. Owing to the inertia of school-governing bodies, pedagogical theory is always far in advance of pedagogical practice. In our schools to-day are actually found many of the abuses about which Rousseau raved one hundred and thirty years ago. There are paragraph-recitations and rote-learning and dry memorizing of useless stuff. It is not strange that educators, in trying to root out this evil, have failed to notice that the time has come for a reinstatement of memory study and training on a higher plane. Only recently, indeed, has the revival in psychology reached this branch of the subject. Now, interest has fairly been awakened by the important studies of Ebbinghaus, Fauth, Ribot, and Burnham.

Long continued disuse of any function, physiological or psychological, results in its deterioration. A century of neglect must show a loss in the power of memory. Precisely this has happened. We make no pretensions now of possessing the retentive powers of the ancients, as notable instances of which we recall the marvelous memories of Cyrus, Themistocles, Plato, Seneca, Hortensius, and Lucius Scipio. In comparison with the Schoolmen, the Hindoos, and the Japanese, we suffer still more. Among them we find examples of erudition not inferior to those of our own times, but the point is that, in general, what their scholars knew, they knew; what our scholars know, they know where to find in their libraries. Our modern loss of this power is less noticeable, how-

ever, both because, owing to our ever present written records and references, we have less daily need for memory, and because a high degree of specialization in modern life has developed in many people comparatively perfect special memories.

In this connection it is necessary to notice the statement, made by some psychologists, that a person's retentive power is limited by physiological conditions and cannot in particular cases be improved by training; which, if true, might lead to the supposition that no serious results would follow its long continued disuse. Against this is the general belief, founded apparently on everyday experience, that memory can be enormously improved by practice and training. The difficulties, not real. Perfect memory includes three processes, retention, representation, and recognition. Retention, as a purely physiological process, depending we may not doubt upon the circulation of the blood and the proper function of nervous elements, could not of course be improved by purely psychological methods; but to say that it could not be improved by training would be no truer than that the lungs or the muscles could not be strengthened by exercise. Certainly the retentive power may be increased by improving the general health. If, leaving the individual, we consider the effect of heredity, we cannot doubt that long continued use and reliance upon the retentive forces of the organism would greatly increase their efficacy. Again, the retention by the organism of any impression depends not only upon the physiological conditions above indicated, but also upon the strength of the original impression. The strength of the original impression depends much upon attention and interest. Attention and interest are susceptible of training. Concerning the second process in memory, viz.: representation or reproduction, it is unnecessary to show how readily this responds to education, owing to its dependence upon proper and easy associations and upon repetition. It cannot, therefore, be doubted that the omission of any especial attention to memory, in our educational plan, has been one of the causes of the decline of the power. Other causes, however, are numerous. This is an age of books and of printed and written records. With our indexes, and our bookkeepers, and our typewriters, and our newspapers, we no longer find it necessary to depend upon our memories for the preservation of the myriad events of our private and public life. Our reading habits, furthermore, are utterly destructive to memory. Our wholesale and superficial reading of new books and old books, of magazines and reviews, and especially of daily newspapers, makes the mind the recipient of an incessant stream of weak impressions which we could not retain if we would, and would not if we could. In our

present manner of life the mind is becoming less like a storehouse and more like a clearing house. Ideas, like bank bills, are eagerly sought but seldom retained. These conditions are comparatively new, and bear effect not yet fully felt. In time, we may expect the mind to adapt itself to these new demands. It will be highly receptive, extremely discriminative, but retentive to a comparatively slight degree. These very results were foretold by Plato, commenting on the value of the invention of letters:

"But when they came to letters, This," said Thouth, "will make the Egyptians wiser and give them better memories; for this is the cure of forgetfulness and folly." Thamus replied: "O most ingenious Thouth, he who has the gift of invention is not always the best judge of the utility or inutility of his own inventions to the users of them. And in this instance a paternal love of your own child has led you to say what is not the fact; for this invention of yours will create forgetfulness in the learners' souls, because they will not use their memories; they will trust to the external written characters and not remember of themselves. You have found a specific not for memory, but for reminiscence, and you give your disciples only the pretense of wisdom; they will be hearers of many things and will have learned nothing; they will be tiresome, having the reputation of knowledge without its reality." (*Plaedrus*, p. 274, Jowett.)

Cæsar, too, relates that the Druids would not commit their knowledge to writing because of the resulting neglect of the cultivation of the memory.

At this point the question arises: Granting that our system of education develops other mental powers than the memory, is it not well? What is to be gained by going back in any particular to the scholastic methods? Has not the new education emphatically justified itself by its results? This question we shall undoubtedly have to answer in the affirmative, if we accept the prevalent notion of the true end in education. If, as Francis Bacon taught, the end be the extending of man's power over nature, we are on the right track. Our education fits the times perfectly. The spirit of the times is such an active, enterprising self-confident spirit, that our educators follow it with meekness. But education should form, not follow the times. The times call for "progress" and our system of education produces men progressive in full measure—progressive in scientific research, in literary criticism, in material development, in discovery, and invention. By a process of selection, social rather than natural or artificial, the discoverer survives. No man is a man who does not discover something, be it a new star or an old manuscript. To this life of discovery, the new education is perfectly adapted. It trains the observing powers from the beginning and the discriminative powers to the end. One of our prominent educators, in a recent article on university ideals, exposes in a brilliant way the

superficiality of the common charges of utilitarianism against our schools and universities, and shows the solid advance made by our higher institutions in promoting humanitarian studies of the highest dignity. Yet in closing he defines the university ideal as "the organization and advancement of learning". But, for the sake of this advancement of learning, is there not too great individual sacrifice? Every student bends all his powers to contribute something new to the total of human knowledge. He must confine his work. He will cut a deep furrow, hence he must cut a narrow one. He is a specialist, but by no means a scholar. Had he not been destined to *produce* something, which when produced is too often nothing but a controversial book or a new and untrue theory, he might have been given a wider intellectual horizon, and enjoyed more of the world's accumulated profits. This conception of the university ideal as the advancement of learning fairly represents the now almost universal notion of the true end in education. It conceives of this end as a kind of effectiveness. This conception is faulty, not because it is not good, but because it is not complete. It omits worth for its own sake, character, attractiveness, happiness. When Aristotle taught that the highest happiness is found in intellectual activity, he did not mean an activity directed merely to a kind of modern "getting there," but a more self-conscious exercise of the higher powers, whose end should be found in self-activity and self-development.

It is customary for writers on education, in defending our schools from the charge of utilitarianism, to say much of "thought-expression" as a worthy and noble end. It is shown in the kindergarten in modeling; it is shown in the intermediate schools in composition and drawing; it is shown in the manual training schools in the products of artisans' tools. Thought-expression may possibly be called the high-water mark in the educational theory of the present. The student must be taught either to do something or express something, and it must be something that will *tell* on the world of things or the world of men. This theory again is faulty, not in what it presents, but in what it omits. We forget that even when the pupil has been taught to do something good, to make, to say, to write something good, the teacher's duty toward him is not complete. All this is *effectiveness*. There are other qualities to be considered, such as attractiveness and happiness, especially that happiness which comes not from activity but from receptivity. The pupil may yet be taught to enjoy something, to see or to hear something, which shall be appreciated and remembered, but which shall not necessarily be used or imitated—for instance, a sonata, a landscape, a classical writing. Those who have by nature a taste for these things are allowed, perhaps encouraged, to retain it. Those who have a taste for cheap

novels and cheap amusements do not have this taste corrected. Our present plan does not include, except in indirect ways, the education of the moral and intellectual tastes.

The new education is essentially the education of the critic. At every step the critical rather than the conservative powers are developed. Our want of respect for that which is old and past is equalled only by our forgetfulness of it. We have unlimited confidence in the possible improvement of whatever is old, our ignorance of it being too often the cause. We are competent to pass an easy criticism upon all old methods, whether in education or manufactures, upon existing social, political, and religious institutions, upon classical and sacred writings. As for purely literary criticism, though only negative work, it is already an overcrowded profession. If, in social science at least, and, as we may believe, in other branches of knowledge, the past is the balance wheel of the present, an educational system which does not encourage historical studies is dangerously deficient. Our system indirectly discourages these studies, both by its cultivation of the critical powers and by its failure to cultivate the memory. Of specialists in historical fields there is no lack. What is referred to is the general absence of interest in these subjects, and ignorance of them in our public schools and colleges.

Our educational system being perfectly adapted to the popular conception of the end education should have in view, it was necessary to dwell thus at length on some defects in this conception. Since the individual is not a contrivance for the advancement of science, but a rational being and an end in himself; since attractiveness and happiness, as well as effectiveness, are to be considered in educational aims; and since our moral and social safety demands that our critical tendencies be tempered by a better knowledge and appreciation of the past, the question is: In what respect do our present methods need supplementing to adapt them to this higher conception? Shall we return to the Jesuit methods of the last century? Surely, since that time, we have advanced as much in methods of education as in those of spinning and weaving. But we may learn something from their schools. What kind of men did they produce? They had little knowledge of physical science. They had little originality, curiosity, or inventiveness. Genius was not encouraged. Each graduate was not worked in his special line for all he was worth, but each was made as complete in himself as possible. He had a broad and what would now be called a superficial scholarship. He knew what had been done and said in the world, and he knew it without recourse to reference books. He cared less to produce something new than not to be found ignorant of what was old. He was a

polished, self-confident man of the world. What methods of these schoolmasters may we unite with our own to give some of the scholastic breadth without sacrificing the modern depth? Is such a result *a priori* impossible? When we think of the enormous mental waste in learning again what we have forgotten, we may readily believe that the result is not impossible, could we but find some way of practising greater mental economy. If, in a word, we had good memories, we might be specialists and still be scholars. This is precisely the point where our system is weak and precisely the respect in which we need to learn of the Jesuit masters. By the application of correct pedagogical principles, it is possible, without sacrificing other necessary powers, to train the memory to an extent not at present realized. It is possible in this way to enable the student to practise mental economy that may give him a more extensive knowledge and culture though no less intensive in special direction.

Professor William James, in his recent work on psychology, says of memory: "No one probably was ever effective on a voluminous scale without a high degree of this physiological retentiveness. In the practical as in the theoretic life, the man whose acquisitions *stick* is the man who is always achieving and advancing, whilst his neighbours, spending most of their time in relearning what they once knew and have forgotten, simply hold their own. A Charlemagne, a Luther, a Leibniz, a Walter Scott, any example, in short, of your quarto or folio editions of mankind, must needs have amazing retentiveness of the purely physiological sort. Men without this retentiveness may excel in the *quality* of their work at this point or at that, but will never do such mighty sums of it, or be influential contemporaneously on such a scale." If it is true that for broad effectiveness a good memory is necessary, it is more obviously true that it is necessary for that attractiveness and culture which come from a widely extended and ready knowledge of the present and past. We hear so much of the mental "drawing out" process, which by a curious error has been made the original meaning of "education", that it has become tiresome, and we long to try the results of less "education" and more *information*. It is thought to be better for a pupil to find out a fact for himself than to be told it. If so, the reason must be that thus he will remember it better or understand it better. But the first reason is merely a concession to our poor memories, and as for the second, it is no doubt true that we should understand our clothes, furniture, and houses better if we made them ourselves. Rousseau's Emile, who is to find out everything for himself and be told nothing, would, sure about as well in our intellectual world as a Robinson Crusoe in our commercial world.

It is true that rote-learning and paragraph recitations, unless they are merely for strengthening memory-power, are vicious; but there are two ways of escape. One is the modern objective method; the other is the Greek subjective method. One is the synthetic method of the object lesson; the other is the analytic method of discussion and reflection. The Greek scholars, your Plato and Zeno, did not get their education by object lessons, by recording temperatures and testing strength of material; and had they been put through such a course of training, it is probable that the world would have been without a Plato and Zeno. Their intellectual growth was too rapid for such constructive work in their youth. Like plants in richly manured soil, they absorbed the ready-made material of the past. The devotee of the objective method may be compared to a plant, which, refusing such material, will take only the original inorganic matter.

Quintillian says: "Turn to account the child's first years, specially as the elements of learning demand only memory, and the memory of children is very tenacious." Instead thereof, the child, according to our most approved method, is detained for hours or days while he is impressed with the fact that not only do three hens and two hens make five hens, but also three tops and two tops make five tops, and three boys and two boys make five boys. He is tormented with the various properties of the sphere and the cube, in which perhaps he hasn't the slightest interest. It is carefully explained to him that this is the picture of a cube, and this is the word cube, and this is the real cube; and it is thought that because the young pupil cannot yet express these distinctions, all these tedious explanations are necessary. Then he is taught reading by the "synthetic method", and the burden is put upon him of partly making his native tongue as he goes along.

It is not for a moment to be denied that the keen discrimination and the quick perception encouraged by the objective method are of high value; this is the point of excellence in the new education. Our mistake is in supposing that this half of education is the whole of it. That something is lacking is shown by cases of which the following is a too common example: A teacher of history in one of the prominent high schools of the country was asked by the writer whether she thought that the scholars in her history classes remembered any considerable part of the history studied, so that if suddenly called upon six months after the last examination, they could tell anything about it. The answer was, No. She was then asked whether she thought that, although forgotten, the matter had become a useful or productive part of their mental fibre. Again the same answer. It is from a kind of despair over this cramming and forgetting process, that the objective

method has been so much encouraged. It corrects the evil, but in a too costly way, by virtually relinquishing the humanitarian studies outright, and substituting those for which the new method is adapted, namely, the material sciences. If from the beginning the retentive powers had been cultivated with the perceptive ones, there would have resulted a mental symmetry, making possible a wider range of studies ending in broader culture.

The aim of this article is to make a plea for memory-training, not to point out its methods. The methods, however, are not so intricate as are commonly supposed. When once it is recognized that the training of memory is worth some time and attention *for its own sake*, the problem of method may be soon solved. Hitherto when any attention at all has been given to memory-training, it has been indirectly, in connection with other work. Curiously enough, in our school system some of the most important matters have received only such incidental attention. Among these, besides memory, may be mentioned morals, music, and gymnastics. Why these should have been made subordinate to reading, writing, and arithmetic, it is difficult for one not committed to the system to say. Memory, then, if given some time and trouble for its own sake, responds to cultivation perhaps more readily than any other mental power. The economy of such a plan is as evident as that of mending the leaks in a vessel before beginning to fill it with water. At a certain time in the life of the child, beginning at the age when, under our present system, he is cutting colored paper and modeling clay turkeys in the kindergarten, the memory is so easily and naturally trained that its cultivation becomes a positive pleasure. In the few years following this time, fruitful results are still more easily obtained. During these years the memory is to be formed rather than filled. Perhaps no one has indicated so clearly some of the best methods of doing this as Charles G. Leland in his work on *Practical Education*. *Absolute thoroughness* in a certain limited, definite amount of memory-work is the thing of prime importance.

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OUR PRIZE COMPETITIONS.

ENGLISH PARAPHRASE.

Of the many competitors for the Prize for English Paraphrase, only 25 complied with all the Rules laid down on p. 161 of the March number of the *Journal*. Consequently only 25 papers were valued; and we have now the pleasure to declare the result, which is as follows:—

i. *Prize*:—

E. M. de Monte, C.E.,

13-15, Hornby Row,

Bombay.

—a poetical paraphrase (the only poetical one received).

ii. *Proxime accessit*:—

Muhammad Bazlullah,

B. A. Class, Government College,

Rajahmundry.

—the best prose paraphrase.

The following competitors are deserving of honourable mention:—

I. *Class*.

"Hebe."

"Hope."

"Laus Deo."

"Plato."

II. *Class*. $\frac{dn}{dx}$

Jack.

J. E. S.

U. B. K. N.

PRIZE PARAPHRASE.

When first that radiant vision, on my sight
Came unexpected, giving pure delight;
She seemed a lovely apparition, sent
To be, a fleeting moment's, ornament.
As—when the twilight slowly fades away.
And night's dark shades entomb departing day—
The twinkling stars shed down their merry light,
And cheer the deep'ning gloom, and make it bright;
So her bright eyes, with mirthful mischief fired,
Relieve the awe, her beauty had inspired.
As—when o'er western skies, in brilliant hue,
The twilight radiates the vault of blue—
The darkly shaded cirrus clouds are bright;
So flashed her raven ringlets in the light.

Each charming trait, in that fair form, was drawn
In colours roseate as the smiling dawn;
Bright as the earliest beams of op'ning day;
And cheerful as the jocund time of May.
In all her movements, all her acts, she bore
Such grace, she moved a living Terpsichore (?):
And bright as goddess, on her gala day;
With sunshine joyous, and with laughter gay.
Sedate, or frivolous, or young, or old,
She, all, within her witching spell would hold.
Waylay the wary; startle the sedate;
And in each heart maintain, with love, her state.
A vision fair, that haunted every breast;
Whose loving empire every heart confest.

But when more intimate our converse grew,
And I, of her, obtained a nearer view;
The spirit nature of her lovely mind,
I saw, was with true womanhood combined.
Midst household cares, she moved, with freedom; ease;
Her graceful motions never failed to please.
Quite self-unconscious, free from guile, or pride;
Free roamed her virgin footsteps, far and wide.
The faultless record of her past, to trace.
You need but gaze upon her speaking face:
Pure as the dewy pearl, at earliest hour;
And stainless as the lily's virgin flower;
Sweet was her past. Her future hopes, as fair;
And promises as sweet, you might read there:
The mind expanding into nobler pow'r;
The form maturing as a lovely flow'r;
The loved, and loving woman:—nature's best,
And highest, noblest, holiest work; confest—
All promised there. But yet a mortal still;
Whose soul, to mortal joys, and woes, could thrill.
A creature nurtured up with natural food;
Nor for this natural life, too bright, too good.
With eyes, that could for transient sorrows weep;
With dimples, from which simple wiles would peep:
Heart, that with heart, in love, could correspond;
Feel praise, or blame; to loving kiss respond:
Have for another's woe, the ready tear;
And with a smile, the woes of others cheer.

Now, as with eye serene, I, thoughtful scan
 Of this machine, so fair, the wond'rous plan;
 Each throbbing pulse; each thoughtful act: I find.
 A Trinity; of life, extension, mind!
 This wond'rous fact, investigation gives;
 A Being, breathing thoughtful breath: that lives
 A few short days, to draw this thoughtful breath;
 Then close its soul enlightened eyes, in death!
 A travell'r here, who, for a little while
 'Twixt life and death, shall weep; and sometimes smile.—
 But firm is reason's seat, in this fair form;
 To guide her safe, through life's impending storm.
 Controlled; and temperate; her chastened will
 Is competent to hold the helm with skill.
 Endurance too, already, has she learned;
 Her acts, with prudent forethought, are governed (?):
 And strength is hers; of body, and of mind:
 A noble woman; perfectly designed.
 'Tis hers to warn, 'gainst evil deeds, and sin;
 And to new righteousness, the sinner win:
 To comfort sorrow; ease the anguished mind;
 With gentle hand, the aching wound to bind:
 Lead in the path of duty, and of right;
 For justice still, control the hero's might,
 So sweet her spirit glows, with virtues bright;
 She shines with something of angelic light.—GERYON.

We have reproduced the writer's punctuation, which is certainly ex-centric. We recommend him to study the rules for the use of 'stops'. It will be observed there are also two false rhymes, due to mispronunciation.

NEW PARAPHRASE.

For Conditions see Journal of Education for March.

"CROSSING THE BAR".

Sunset and evening star,
 And one clear call for me;
 And may there be no moaning of the bar,
 When I put out to sea!
 But such a tide as moving seems asleep,
 Too full for sound or foam,
 When that which drew from out the boundless deep
 Turns again home,

Twilight and evening-bell,
 And after that the dark;
 And may there be no sadness of farewell
 When I embark!

For though from out our bourne of time and space
 The flood may bear me far,
 I hope to see my Pilot face to face,
 When I have crossed the bar.

NEWS AND NOTES.

INDIAN.

The written examination for Teachers' certificates will be held at Madras and in the mofassil, on Monday and Tuesday the 8th and 9th May and *not* on the 1st and 2nd as originally notified.

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The Poona memorialists, who, some months ago, sent a petition to the Government of India, praying for the introduction of a system of compulsory free education up to the Vernacular 4th Standard, throughout the British Indian territories, for all boys, in rural districts, between 7 and 12 years of age, have received an official reply. The memorialists are informed that it is the established policy of the Government of India to promote primary education among the masses as far as possible, and that they sympathize with the desire of the memorialists in the matter. But the Governor-General in Council agrees with the Bombay Government that circumstances of the country are not, at the present time, favourable to the introduction of compulsory free education, and he is, therefore, unable to take action in the direction proposed by the memorialists.
Do. Ed. R.

* * *

Vernacular Education in the Baroda State.—The Director of Vernacular Instruction, Baroda State, in his report on the working of the Department in 1892 has referred to the rapid advance of Vernacular education in the State. The foundation of education was laid in Baroda in 1871 and since then the number of schools and the attendance of pupils have very largely increased. In 1875 there were 70 schools with 6,000 pupils in them; in 1885, 261 schools with 27,000, which before the end of 1892 rose to 1086 schools and 71,796 pupils. Of these, 57,425 are Guzerati boys taught in 139 schools exclusively attended by them. This, amounting to 22 per cent of school-going age in the population, is in considerable advance to the state of education in other States, the percentage of attendance in Mysore and the whole Bombay Presidency being only

13.3 and 15.6 respectively. These schools teach subjects practically useful to the people, such as, music, cookery, drawing, besides special attention being paid to the moral and physical education of the children. The remarkable feature of these schools is 'that they have all got the Vernaculars as the media of imparting instruction to the pupils'. Above all Female education is satisfactorily progressing and there are 6,518 girls in the 49 public schools and 237 females in 7 Zanana classes. Special inducements are also offered to girls to attend schools even after their 10th year. The other important institution, the Kalabhavana, is the first attempt of its kind in this country, imparting theoretical and practical knowledge of several arts and industries through Vernaculars. It is attended by artisan and other classes, and now numbers 435. Workshops are attached to it besides a fresh supply of efficient staff and necessary apparatus. The work done in the shops was of the value of Rs. 47,000 realising a net-profit of 14 per cent. A committee of very influential gentlemen has been appointed to frame the necessary Educational curriculum and suggest means for the further development of these institutions. All this success was mainly due to the great zeal and interest which H. H. the Maharajah evinces in the spread and progress of mass-education, added to the substantial aid from the State of over Rs. 6,15,000 in education alone. The work of the Department during the last year has been a very great success, and is becoming more popular throughout the State.

GENERAL.

English teachers are rejoicing over the fact that one of their number has at last been promoted to the rank of Inspector. Mr. Wilkinson Northrop is the man to whom the honor has fallen. He has served twenty years as an Inspector's assistant and eight as sub-inspector in Lancashire. Prior to his entrance upon these duties he was headmaster of a school at Lees near Oldham, having been trained for the profession at the Borough-road Training College when Dr. J. G. Fitch was the Principal. Thus it will be seen that Mr. Northrop has come up step by step from the ranks. It should be observed that he is not the first Inspector who has seen service as a teacher, but heretofore such appointees have invariably been university men.

The author of a popular novel makes his principal character cry out, "Why did not my father bring me up to be able to earn my living!" It is another expression of the thought that lies at the basis of the movement in favour of manual training. All teaching must bear on life—on higher living. To be able to recite the words in a series of books

may have a bearing on the life of a pupil and it may not. A teacher visited the parents of a pupil who had shown extraordinary ability in mathematics to urge that he be sent to college; he was told that he had that morning beaten his mother severely on the head with the copy of Hockley's geometry because he was asked to bring in some wood. "Why should there not have been as much growth of moral as there was of intellectual power?" was the problem the teacher went home to consider. The intellect had been addressed, had expanded, but the moral nature had remained untouched, in fact, it seemed to have deteriorated.

There is a school for girls in Rome of which the Eternal city may well feel proud. It was founded by a woman, a Signora Ribighini. The curriculum includes sewing by hand and by machine, dressmaking, mending of all sorts of fabrics, embroidering in gold, silver, and silk, stocking weaving, washing, ironing, cooking, and artificial flower making. Besides this instruction in female arts, there are courses in moral and civil law, in domestic and commercial mathematics, business forms, drawing, and modern languages.

The dressmaking classes make gowns and costumes for the queen and the ladies of the court. Mending is taught as an art; girls who take this course must also pursue the study of geometry to understand the principles of the designs of fabrics. The beauty of old designs, frayed and faded, is reproduced. Artificial flower making begins with drawing from nature. The secrets of ancient tints and colors are discovered by patient experimenting, and thus lost arts are regained to supplement the achievements of modern times.—*Sch. J., N.Y.*

According to the last report of the National Commissioner of Education for the year 1888-89, the number of colleges and universities in the United States is 334. Of these, eleven have productive endowments of a million and upward. Harvard heads the list with an endowment of \$6,705,046; Columbia is second with \$6,668,966; Cornell third with \$4,528,351. Twenty-three institutions have between half a million and a million. In total amount of income, Columbia leads with \$725,885. Harvard is second with \$722,410, Cornell third with \$329,811. Michigan fourth with \$274,272, and Yale fifth with \$258,627. Since this date immense sums of money have been given to many of the universities.—*J.E., N.E.*

Philadelphia is in a peculiar position. The legislature in 1865, in creating the Board of Education for the city of Philadelphia, provided

that the teachers *then in the schools* should be continued in the employ of the city *irrespective of any qualification* that the School Board might thereafter prescribe. It is now 27 years since that law was passed, and 279 of those impregnable teachers are secure in their positions. Many of these teachers are quite advanced in life, but they cannot be disturbed so long as they can sign the pay-roll. Is there another city in the world with such a law?—*J. E., N. H.*

Every year Italy expends \$96,000,000 for her soldiers, and \$4,000,000 for her schools; Spain, \$100,000,000 for soldiers, and \$1,500,000 for her schools; France, \$151,000,000 for soldiers and \$21,000,000 for her schools; Germany expends \$185,000,000 for soldiers and \$10,000,000 for schools. The United States expended \$54,000,000 for soldiers and \$115,000,000 for public schools.

Pupils should not often be required to copy long passages from the blackboard. The frequent rapid change necessary to adjust the eye for near and far distant vision is very wearisome, and much of such work weakens the eye. To look off occasionally, however, from near work to a moderate distance is restful and desirable.

In writing, a free hand moving automatically in harmony with a free mind should be our ideal.

The principles and methods of teaching, like the rules of grammar and rhetoric, are simply the maxims that guide artists.

The sooner the school boards all over the country realize that they have minds to deal with instead of matter, the better it will be for the school system.

A monograph by Professor Tullio Martello of Bologna, on the decadence of the Italian universities has caused a marked sensation. This he attributes to the spirit of officialism derived from the French, and to the absence of efficient organisation and of proper restraint upon the students. The attendance of the latter upon the courses is not more than 30 per cent. of the enrolment. Professor Martello advocates the concentration of resources upon a few vigorous universities and the suppression of those unworthy of the name. This done, he would free the universities from political influences. A project of law modifying the programmes of secondary schools and fixing the salaries of professors is under discussion.

Pierce College of business and shorthand, Philadelphia, on the occasion of its recent 'commencement', secured Hon. Chauncey M. Depew for an address of advice and inspiration to its pupils and graduates. His address was a masterly presentation of the principles upon which young men may build a large success in business and political life. These were pithily summarised in the daily papers as "stick, dig, and save." *Ed. J., Boston.*

When you cease being a student, the time will have come to cease being a teacher.

The Evening Standard publishes an interesting and encouraging article on some famous dunces. We pick out a few of them. Sir Isaac Newton made little progress "until one day, the boy who was above him having given him a severe kick in the stomach, from which he suffered great pain, he laboured incessantly till he got above him in the school, and from that time continued to rise until he was the head boy." Isaac Barrow was not only an idle and quarrelsome lad, but was so dull and stupid in his early years that his father once remarked to a neighbour that "if God took away any of his children, he trusted it would be Isaac, as he feared he would never be fit for anything in this world." Even satirists and humourists were dull enough as boys. Swift was once deemed a fit subject for a fool's cap at school. At Dublin University, he was by scholars esteemed a 'blockhead', who was denied his degree on his first application, and obtained it with difficulty on the second. Of Goldsmith it was said by a relative who first undertook to teach him his letters, "Never was so dull a boy," and at every school he was the 'inspired idiot', as in his later years, he was, as a shy, thick, awkward boy, the constant butt of his companions who thought him 'little better than a fool'. Again, Sheridan was, even in his mother's eyes, 'the dullest and most hopeless of her sons.' He was sent home from Dr. Whyte's academy with the reputation of being an impenetrable dunce, who wrote 'think' for 'thing'. The author of the *Decline and Fall of the Roman Empire* was pronounced 'dreadfully dull', and the utmost that was predicted of Hume in his youth was that 'he might possibly become a steady merchant.' Adam Clarke, skilled in Oriental languages and antiquities, was called by his father 'a grievous dunce'; Boileau, a model for Pope, was only a youth of little understanding. Again Dryden was 'a great numskull'. As a boy Walter Scott gave few indications of his future greatness, and one of his early preceptors described him as 'the boy that has the thickest skull in the school'. Afterwards at Edinburgh University the future 'Wizard

was thus epitomised by one of the leading professors, "Dunce he is and dunce he will remain". Dr. Chalmers was solemnly expelled from school as 'an incorrigible dunce'. Ludwig, the famous geometrician, was sent away from school after four years' ineffectual struggle to learn the common rules of Arithmetic. The 'marvellous boy' Chatterton, who died at eighteen, was considered 'a dull child, incapable of improvement'. John Howard, the philanthropist, was another illustrious dunce, 'learning nothing in seven years'. So some boys of considerable latent powers are often misunderstood, simply because they instinctively rebel against a training to which the average standard of youthful ductility readily submits. But such emerge from the shade and surprise their friends.

* * *

The new technical schools, in connexion with Nottingham University College were, on the 12th ult., formally opened by the Master and Wardens of the Drapers' Company, of London, who have been munificent contributors to the cost of these schools. Some ten years ago a technical department was commenced at the College, towards the support of which the Drapers' Company made a grant of £300 a year for six years with an additional £200 for outfit in the first year. The development of this department has been such as to lead to the erection of the new schools, which now form a handsome wing of the College buildings. Towards the building fund and equipment, the Town Council received the sum of £4000 from the Drapers' Company, and a bequest of £3000 in addition to an income of £100 a year, from a former citizen of Nottingham, the late Mr. F. C. Cooper. The total cost of the building, irrespective of the fittings, is about £13,000. The course of instruction includes mechanical and electrical engineering, lace and hosiery manufacture, wood-work, as carpentry and pattern making, fitting, and turning, and plumbing. The Master of the Drapers' Company having formally declared the schools open, the Postmaster-General moved a vote of thanks to the Company for their munificence and to the Master and Wardens for their presence. The right hon. gentleman said that, although the meeting was held in connexion with a local institution, it was associated with a great national movement—the recognition by the commercial classes, and indeed by the people of this country, of the fact that if it were to maintain the commercial and manufacturing supremacy which we, as a nation, had held in the past, we must enable the industrial classes to obtain an education which would fit them for the more difficult and complicated tasks imposed upon them. London might be described as the lungs and heart of the commercial system of the country, and that fact, he thought, explains why a great City company had given

such substantial marks of their sympathy with the work which the Nottingham Corporation had undertaken.—*Ed. T.*

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It is a common thing for teachers in private and in public to say in response to criticism that "teachers cannot furnish brains", and this announcement is always cheered. It sounds well, has a good ring in it, but it is often deceptive. Supt. James M. Coughlin of Wilkes-Barre, an exceptionally level-headed man, made the sharpest retort to that sentiment that we have heard. He had shown by absolute figures that but twenty per cent. of the pupils under a given programme went through in time, and asked if a programme ought not to be so arranged that a larger per cent. would move on without reviewing or being side-tracked. "We cannot furnish brains" was the retort. "Well, if the Lord cannot furnish brains for more than twenty per cent. of the pupils, we shall do well to make a programme for which the Lord can furnish brains." Programmes and methods are expected to be for children whom the Lord has made.—*Ed. J., Boston.*

* * *

In China, the *Schoolmaster* remarks, instruction is quite free and unrestricted; any ignorant charlatan may open a school, without any interference on the part of the Government. The character of the teacher is a matter simply for the parents. When it is desired to start a school, the chiefs of the village or the district of a town assemble, appoint a teacher, and decide upon his salary. A place is furnished, and the school opens. If the teacher wishes to retire, he is allowed to do so with very little ceremony, and another is appointed. The Government, however, exercises an indirect influence over the school when the time comes for the competitive examination, which is possibly going to raise some of the scholars to high office. The students then place themselves under competent masters, who make them study the famous Chinese classical works, upon which the examination is based. The more well-to-do are accustomed to resort to coaches, who give private lessons at their pupils' own homes, and sometimes lodge with the family. As to primary instruction, there is, according to M. Hue, the missionary, no country in the world where it is more widely diffused. Among the farms, fenced around with fine bamboo plantations, one finds the schoolmaster, generally an old man with white beard and moustache, his nose surmounted with an enormous pair of spectacles. He very often lives in a pagoda, and receives his emolument in kind from the husbandmen after the ingathering of the harvest. If the crop is poor, the dominie finds himself in a miserable plight. In the northern provinces, on account of the rigours of the winter, the schools are fewer in number and smaller than those further

south. The lower civilization of the northerners is easily perceived. In the central provinces the Chinese are full of vivacity and intelligence and devote themselves assiduously to the study of literature. It is not however, correct to say that no Chinaman is uneducated. Out of ten ordinary Celestials, only one is able to read properly. The other nine—and it is this which gives a false impression about their achievements—are able by a sort of daily practice to read and write certain characters, which just suffice for their own particular business. The Chinese pedagogues teach their pupils the various methods of saluting, and the deportment which they ought to assume towards parents, superiors, and equals. When he has mastered the elements, the pupil studies in succession the "San-dre-King," a sort of poetical book of nature and morals, from the Celestial standpoint. Then follows "Ta-Hio," a treaty on politics and morals; "Tehouang-Young," a book of wisdom; "Lun-Yu," a book of moral and political maxims; and "Meng-tze," a book of philosophy. These are followed by the "King" series, which contains old legends and records in five volumes. The great defect in Chinese education is that it develops no reasoning or reflection in the pupil's mind. The pupil is only called upon to exercise his memory on works the sense of which he rarely comprehends, and which his teacher expressly refrains from explaining. The mental exercise which is furnished by the study of mathematics or metaphysics is quite wanting. The memory is cultivated at the expense of the reasoning faculties. If a pupil appeared to think out any idea for himself, it would be something which had been previously expressed. In a word, Chinese education is retrospective; always and continuously it looks behind, never before.

LITERARY.

The School Journal of New York has recently moved into a new building; it has been erected to accommodate properly the publishing business that has been growing around it. The publishers Messrs. E. L. Kellogg & Co., have done nothing but work hard for nearly twenty years and that they have a convenient building to be housed in will be a pleasure to every teacher who has read their publication. The Journal earnestly at the outset strove for improved methods in the school room, and kept at it year after year, and still keeps at it. Now the publishers of the leading magazines declare their most widely read articles are those on education. Hence its success has been well merited.

The State of New York, through the department of education, is looking up the spelling of the teachers. In each of the county institutes one hundred words were given out for spelling. In three

county institutes attended by 291 teachers 140 failed in *accommodate*, 187 in *abridgment*, 125, *beneficent*, 110, *committees*, 141, *coalesce*, 112, *prejudice*, 132, *parliamentary*, 118, *suffrage*, 128, *sinécure*, 169, *embarrass*, and so on. The results show that it was high time to begin the enquiry.

An important series of exceedingly interesting letters, written by Elizabeth Barrett before her marriage to Robert Browning, were recently sold in London. They were all written between 1842 and 1845, to Mr. Cornelius Mathews, of New York. In the first letter, dated Nov. 3, 1842, the writer exclaims, "It is delightful and encouraging to me to think that there, among the cataracts and mountains which I never shall see, there in 'Dreamland', sound the voices of friends, and it shall be a constant effort with me to deserve presents in some better measure the kindness for which I never can be more grateful than now." Three weeks after she writes, "I would solicit your reverence for our Tennyson and our Browning (who, though he speaks obscurely, yet delivers oracles)", and "Mr. Tennyson is a great poet, notwithstanding that very scornful word which I was very sorry to see in the *North American Review*." Of the remaining letters the most important was a long epistle, dated Dec. 3, 1845, in which she says:—"You amuse me when you say that Mr. Poe has dedicated a book to me and abused me in the preface. That I should not think human justice—if it were not American. I understand Mr. Browning has just published another number of 'Bells and Pomegranates', in which his great original faculty throws out new colours and expands into new combinations. A great poet he is—a greater poet he will be—for to work and to live are one with him"; and concludes with, "Mr. Tennyson has a pension, you see, but for the rest, is said rather to smoke than to make poems. . . . Dickens is about to cast himself headlong into the doubtful undertaking of the new daily paper, the *Daily News*." The fourteen letters brought a total of £61 1s.

The reports of the English Historical Commissioners often throw an interesting side light upon well known events. The last contains a narrative of the death of Hampden by Sir Edward Harley, from information furnished by Hampden's son-in-law Sir Robert Pye. It may be compared with the commonly received account as given by Nugent and stereotyped by Macaulay.

In a skirmish Mr. Hampden drew one of his pistols, and as it gave fire it burst to pieces in his hand; and shatter'd his arm in a very dismal manner. Upon this he made the best of his way off; he was very well mounted, as he always used to be. When he was come to a considerable rivulet, as there are many such in those parts between the hills, he was much put to it what to do. He thought that if he alighted

and turn'd his horse over, he could not possibly get up again, and how to get over upon him he could not well tell. But he resolv'd at last to try what his horse could do, and so clapt his spurs to, and got clean over. As soon as he possibly could he sent for me; he was in very great pain, and told me that he suspected his wound was mortal; but what makes it still more grievous to me, says he, is, that I am afraid you are in some degree accessory to it, for the hurt I have receiv'd his (*sic*) occasion'd by the bursting of one of those pistolls which you gave me. You may be sure I was not a little surprized and concern'd at hearing this, and assured him they were bought from one of the best workmen in France, and that I myself had seen them try'd. You must know it was Mr. Hampden's custom, whenever he was going abroads always to order a raw serving boy that he had to be sure to take care that his pistolls, were loaded, and it seems the boy did so very effectually, for when ever he was thus order'd he always put in a fresh charge without considering or examining whether the former charge had been made use of or not, and upon examining the remaining pistoll they found it was in this manner quite filled up to the top with two or three supernumery (*sic*) charges. And the other pistoll having been in the same condition was the occasion of its bursting, and shattering Mr. Hampden's arm in such a manner that he receiv'd his death by the wound and not by any hurt from the enemy.

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An interesting article on *Americanisms* appears in our Boston *Contemporary Education*. We cull a few that are at least ingenious, and may be new to many of our readers. The Indians called the English *Yengees*, from which *Yankee* comes. *Brooklyn* is called after *Breukelen*, a village near Amsterdam, Holland. The word *bush* comes from the Dutch word *bosch* meaning a region abounding in trees and underbrush. *Bushwhacker* comes from this, and it used to mean the process of propelling a boat by pulling the bushes on the banks of the stream, but it has since become a name for lawless persons and fugitives from justice who take refuge in the bush. The Dutch word which has the strongest hold on American speech is *baass*. From it we derive *boss*. Originally this meant simply a master or overseer, but now any one who has the least control is the *boss* such as *boss-builder* *boss-carpenter* &c. If two people do not agree, the one who carries his point is the *boss*. The head of a party politically is the *boss*. It has even been turned into a verb, and the man who undertakes any business 'bosses the job'. Some familiar names have been wofully changed. A Mr. Bon Cœur was called *Bunker* in New England, and it was near his hill that the famous battle was fought. *Bon pas* is Bumpers, and *Del'Hotel* is Doolittle. Forests are *timber* out west, called so on account of their value as timber. To take to the *timber* is to hide in the woods. Seeking shelter led to the phrase to *tree one's self*. The verb to *lynch* and *Lynch law* are supposed to be called after a man named Lynch, who came over to America in 1687 to suppress piracy. He took the law in his own hands and without special license brought the offender to

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summary justice. *Caucus* is credited to *Caulkers*. It occurs for the first time in 1735 when the shipowners of Boston held a meeting to decide on persons who were to be entrusted with places of influences. *Carpet-bagger*, was the northern man who after the war went south with all his worldly goods in a carpet-bag, expecting to return a rich man. *Greenback* is the short name for treasury notes printed in green-ink. *Bogus* comes from *Borghese*, the assumed name of a remarkably successful swindler. *Telegram* was born April 6, 1852, in the Albany Journal. Those who were alive before that had to say *telegraphic* despatches. In vegetables, *Jimson* was *Datura*, a weed from the West Indies. It first took root near Jamestown and then was called *Jamestown-weed*, shortened to *Jimson-weed*, and now simply *Jimson*.

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The following is an exact copy—save for the deletion of the name—of an invitation to meet the members received by a selected candidate for the post of head master, from the clerk of a Welsh School Board;—
"Syr,—Your to hand, the committee will meet the 23rd inst. and take all applications to considerations, and information will send at once after—Yours truly,—Likely you understand that (Welsh) is indispensable our place small country place. Can pass about 48 children. Please what age."—*The Schoolmaster*.

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Among the signs of progress is the better attitude of teachers toward educational journals. The time is not far back when the teacher subscribed for one, because there was one,—it might take a little or a good deal of persuasion to effect this, usually the latter. As to paying for the paper, that was uncertain; oftentimes he neglected to do this until the publisher became tired of asking. To send a bill oftentimes made the subscriber angry—or he pretended to be.

But much of this is changed; a teacher now subscribes because he knows he can be immensely benefited.

The teacher is becoming almost as prompt as subscribers to other papers; he subscribes expecting to pay; when it is due he remits. This is not wholly the case; would that it were!

The teacher should learn what to do when a bill is sent to him; too often he attempts to evade responsibilities. He subscribes for one year and pays in advance; the publisher continues to send the paper and endorses a bill; the teacher pays no attention to the bill, but continues to take the paper from the office.

Now if he does not intend to pay for the paper he should notify the publisher not to send it. It is the same as a gas bill or a milk bill;

they are contracted for by the week or month; you go on receiving the milk, or burning the gas and you must expect to pay.

Some subscribers will say "I never ordered the paper after the first year;" yet if they go on taking it out of the office that shows they are receiving it.

Let every teacher learn to act in a business way concerning a paper; If milk is left at his door he notifies the milkman not to leave it if not wanted.—*Sch. J., N. Y.*

MUSICAL.

The results of the Music Examinations held in Madras appeared too late to receive notice in our last issue. In the Elementary Examination eight candidates passed in the first class and six in the second class. Six of these students were from the Madras School of Music, two from the Convent of the Good Shepherd, Bangalore, and six were private students. One of these candidates was practically tested on the organ, and as the test is not only a stiff one, but appeared this year for the first time, it is satisfactory to observe that he passed in the first class.

In the Intermediate Examination seven candidates passed, two in the first class and five in the second. This Examination was interesting in that it was the first conducted on the lines of the new syllabus drawn up for Government by the School of Music. This syllabus, in addition to the usual branches of harmony, required for the first time, knowledge of a more varied description, and such as every well-informed musical person ought to possess. Such, for instance, as a knowledge of biography of great musicians, knowledge of musical form, which means the ability to distinguish the musical difference, for instance, between a symphony and a hymn tune; and required also an elementary knowledge of instrumentation, so that at all events a candidate should be able to know the names of the instruments in an orchestra.

A strong desire was expressed that separate certificates should be given for success in the practical and theoretical sides of the examination; but unfortunately Government could not be persuaded that this was desirable. We think they were wrong. An architect need not be an expert bricklayer. A successful writer may be and often is a very dull and ineffective speaker. Perhaps as far as the intermediate examination is concerned, inasmuch as neither the theoretical nor practical standard is very high, the inconvenience is not so apparent. When, however, candidates come up for the advanced examination, a strong representation will be made to the Commissioner on the subject.

It does not seem probable that any candidate will appear for this examination before the end of next year, and even then it is improbable. We should have hoped that the handsome prizes offered by Mr. Grigg, viz., two of Rs. 200 and 100 respectively, would have caused a stir among musical alumni.

Mr. Stradiot's gold medal for theory was not awarded, as no candidate satisfied the somewhat stiff conditions attached to the prize. The School of Music gold medal for pianoforte playing, was awarded to Miss Cormac of Vepery, and two other gold medals offered by the same public-spirited body for proficiency upon stringed instruments and upon any other orchestral instrument respectively, remain unawarded as no candidate appeared.

Mrs. Grigg's two prizes, consisting of music to the value of Rs. 30 and Rs. 20 respectively, were awarded to Miss Croaker and Miss Spence who headed the School of Music candidates in the recent Elementary Examination, in the theoretical and practical divisions respectively.

Sundry changes have been made in the governing body of the School of Music. The Very Rev. T. Mayer was elected President *vice* Mr. Grigg resigned and Mr. W. B. Morren, A. Chinnaswami Mudaliar, and General Van Straubenzee were elected on to the Council. There will shortly be two more vacancies owing to the retirement of Messrs Handley and Taylor.

The great musical event of the year, an event one may say of international importance, has been the production of Verdi's new opera *Falstaff* at La Scala, Milan. The famous Italian theatre has been the scene of many great triumphs, but we question whether it has ever witnessed a more interesting sight than was presented when the eighty-year-old composer was led on to the stage to receive the congratulations of the large and distinguished audience. The way things are done in Italy is different from the way things are done in India, and it is so pleasant to read of municipalities and provincial Governments sending official telegrams of congratulation to the venerable composer—the G. O. M. or grand old musician as we may call him.

Falstaff is based, as might be imagined upon the *Merry Wives of Windsor* and Verdi's last opera produced six years ago, also at La Scala, was also Shaksperian, being a musical setting of *Othello*. Since the death of Scribe, perhaps the most successful librettist that ever lived, composers have had much to contend with. The manufacture of bricks without straw is a joke, compared with the composition of an

opera without a libretto. And yet it is the musician who gets all the credit. Verdi was specially unfortunate in his early days inasmuch as Italy was involved in a long series of political troubles, and the lyrical allusion which procured him applause to-day might not improbably send him to gaol to-morrow. It happened once that as he neared the completion of one of his operas political affairs began to assume a complexion quite different from that which they bore at the commencement of his labours and under these changed circumstances it was no longer safe to produce the opera. It was subsequently found, however, that all that was wanted was a change in the *Dramatis personæ*. The villain became the hero, and so on, and now *Rigoletto* is one of the most popular of his productions.

J. T. L.

CORRESPONDENCE.

To the Editor, Indian Journal of Education.

SIR,—A pamphlet, entitled "A Review Reviewed," has reached me by post. It is signed by S. S. Vyasa Rao, B.A., Science Assistant, S. P. G. College, Trichinopoly, and purports to be a reply to the review, published in the last number of the *Indian Journal of Education*, on a book called "Notes on Qualitative Chemical Analysis," the author of which is Mr. P. Lakshmi Narasu Nayudu, B.A., Professor of Physical Science at the same College. The objects of the pamphlet, which, I understand, has been received by a number of people, is clear from its concluding paragraph, which runs as follows:—

"In conclusion, we trust that we have exposed the hollow, absurd and unmerited strictures of the critic and hope that the labour which the author has taken for the student will be recompensed by the right appreciation of his book".

The "we" may not include the author, but whether or not this is the case, I request you will inform him, if it has not already been done, that the usual procedure followed by an author who considers himself aggrieved by a review of his book, is to embody his reply to the criticism passed on his work, in a letter to the Editor. This letter is usually published along with any explanations which the reviewer may consider necessary. If Mr. Lakshmi Narasu Nayudu does not adopt this course, the inference will naturally be drawn that he is unable to disprove the statements made concerning his book, and this opinion is not likely to be affected by any number of pamphlets which he or his assistant may circulate.

THE REVIEWER.

REVIEWS AND NOTICES OF BOOKS.

A TEXT-BOOK OF GENERAL GEOGRAPHY, by *Tanjore Srinivasa Rao*. Madras, Addison and Co. Price Rs. 10.

The compiler of this book states that his experience of 28 years' educational service has led him to feel the want of a publication such as the one under review. We trust that the experience of other teachers will not be found to coincide with his, or the study of geography will not be "facilitated" as the author seems to imagine. Mr. Srinivasa Rao states in his preface that the arrangement and contents of his book may induce students "to prefer its use to any other now in the curriculum of studies (*sic*)."

We hope not, as we have more confidence in the common sense of the Madras student than to suppose that he would use so miserable a collection of geographical and idiomatic errors, when these have been pointed out to him.

If the result on the teacher of 28 years of teaching is to make him produce such a volume as this, it is appalling to think what misery he must have inflicted on his "students" during that period. If we might venture to offer the compiler a little advice, it would be to cease teaching, at any rate geography, till he has acquired some knowledge of English, and some idea of method, and till he is no longer obliged to draw his facts from Sullivan's Geography. This may appear very strong censure, but almost every page of Mr. Srinivasa Rao's book contains ample justification, and reveals the author's utter ignorance even of the meaning of the words of the text books from which he has endeavoured to copy.

A few instances will suffice, though they might be indefinitely multiplied.

On page 2 we find the following enigmatic sentences:—"North, South, East and West are called the cardinal points. But they are quite different on the map."

On page 3—"In order to shew you both sides of the earth at once, the earth or the world is divided into parts or hemispheres."

On page 4—"The earth, the sun, and the moon are called planets or heavenly bodies". . . . "The moon is called a satellite, because it turns round the earth in 28 days."

On page 6—"Planets are heavenly bodies which move round the sun like the earth" (*Cf. supra*).

On page 8—"Latitude is the distance. . . . north or south of the Equator. They are measured by degrees."

The compiler's definitions are gems. If the object of definition is to mislead, then these are perfect specimens of their kind.

For example: Chapter 10 is headed "Definitions of the Natural Divisions of Land." Among these natural (?) divisions of land the compiler includes such rarely recognised varieties as "the Pompas," "a sea-board," "an earthquake," which last is said to be "an eruption or trembling of the earth caused by the effects of internal fire."

Among other definitions are the following:—"A lake is a body of water entirely surrounded by land," "a lagoon is a shallow lake of salt water into which the sea flows," "a branch of a river is a river running out of another river," "an ocean is a very large portion of salt water almost surrounded by land," which is followed, on p. 17, by the assertion that, "the Antarctic Ocean has no branches because no part of it approaches any considerable tract of land"; "Hurricanes are great sudden storms or whirlwinds rotating onwards round a central axis at the rate of from 20 to 80 miles an hour." "At twenty miles an hour the wind is called a gale, at fifty a storm; and at eighty a hurricane."

On p. 3 we are informed that the earth is composed of land and water; on p. 11 we find "the waters which surround the earth;" and, on p. 21, "water, of which the earth is composed." We are elsewhere introduced to "Circus clouds," and "a species of solid snow or snowy rain," as well as to "carbon, supposed also to be a metal," and the metals "Platina" and "Magnesia."

The author seems to be in a sad state of uncertainty as to volcanoes, which, on p. 13, are described as "burning mountains which emit smoke, ashes, hot cinders or stones, and a fluid called the lava," whilst on p. 34 we become acquainted with the startling fact that "volcanoes consist of the eruption of smoke, ashes, flame (*sic*), melted stones called lava, sometimes of water and mud from the earth." On the subject of religions the compiler has the following—"Hinduism . . . is said to be Polytheistic." "Polytheistic religion is termed Paganism, which is the religion of . . . savages in all the parts of the world."

Surely modern philology has not taught the compiler to assert (p. 46) that Latin is derived from Greek! nor modern travel brought him to the island of *Cyprus* (p. 51). Probably in that Greek from which Latin is derived there was a word *nomos* = a name (p. 133), but we imagine that ordinary classical scholars have been hitherto oblivious of the existence of such a word.

These specimens selected at random, are surely sufficient to shew that no condemnation can be too strong for a work which professes such high aims, but is characterised by such gross blunders of language, fact

and arrangement. Our only apology for noticing so worthless a book at such length must be that many "students," in their eagerness to find a royal road to the heart of the examiner, are but too prone to fall into the snare and to rely on such pernicious catch-penny productions as this.

TROPICAL AGRICULTURE, A Text Book, by H. A. Alfred Nicholls, M.D., &c.: London, Macmillan and Co., 1892. Price 6s.

This book, according to the author, has been written specially "for the use of the Colleges and higher schools" in the tropics, as well as for "peasant proprietors, owners of small estates, and intending settlers in tropical countries." The book is divided into two parts, the first part dealing with the "Elements of Agriculture," or rather the "theory of Agriculture," and the second part with tropical "Agricultural Products." The first part consists of thirteen chapters covering 85 pages. In these 85 pages is included the whole of what may be called the "science of Agriculture," embracing the geology of the soil, the chemistry of plant-life, and the *rationale* of tillage operations, manuring, irrigation, &c. Tropical Agriculturists, more than all others, require to be told, in season and out of season, the principles of modern agriculture, and their application to ordinary farm practices; and, we should, therefore, have expected a more liberal treatment of this important branch of agriculture at the hands of an author, who appears to have had the benefits of a thorough theoretical knowledge combined with the experience of practical farming in the tropics. The secret of success in tropical agriculture may be summed up in three words;—manure, irrigation, tillage. A knowledge of the available manures in the east, which are too many, their conservancy, and application, is of prime necessity, and we are concerned to find that the author has disposed of this important branch of agriculture in 12 pages. Some of the important manures have, no doubt, been mentioned; but there is absolutely little or no information about their preparation and application. Irrigation, which is even more important than manuring and tillage, for cultivation is almost impossible in the tropics without the application of water to the soil, has been summarily disposed of in a page and a half. Five pages have been devoted to "tillage operations"; but we actually find only the names and description of some of the farm tools and a few of the agricultural implements. The great question of the day with regard to tropical agriculture is the question of "deep tillage". There is absolutely nothing in the book with regard to this important question. The chapters on pruning and grafting, though short, contain some valuable hints, and the author's position as a

Botanist has enabled him to treat this branch of horticulture in a satisfactory manner. This closes the first part of the book. We now come to the examination of the second part dealing with "agricultural products." The second part, to a fair extent, justifies the title-page of the book. The author has included most of the valuable products of the tropics, and from the immensity of the subject we could not expect a detailed account of the cultivation of even the chief crops. However, the author has done his best; and the chapters on coffee, cocoa, and tea, are specially worth reading by even professional men. In these days of keen competition, leaf-disease, and other ills that planters are subject to, it would have been a boon if the author with his experience of Jamaica planting, had given us something more about the maintenance of estates in good manurial condition. The golden days of planting industry when, for the mere asking, the soil yielded a heavy harvest, have long since gone by. The period of exhaustion has come, and the question with planters of to-day is how to maintain the fertility of their lands without much expense. We do not find any answer to this question in the book. The chapters on fruit culture have been treated in a very practical manner and many valuable suggestions have been made by the author. We would especially draw the attention of our readers to the chapter on the cultivation of "the Pine-apple." This valuable fruit could very well be cultivated in many parts of Southern India. The variety met with in South India is very inferior, acrid, and sour, and its cultivation is without any system whatsoever. The industrial crops such as sugar-cane, indigo, tobacco, pepper, ginger, &c., have received fair treatment for a text-book on agriculture. The tropical cereals and root-crops have not been omitted by the author. Several varieties of yams cultivated in Jamaica have been mentioned. We might suggest to the Agricultural Department, to introduce these yams to Madras and extend their cultivation and usefulness. The book on the whole will be a valuable one to amateur farmers, intending planters and students in Agricultural schools. The get-up of the book is admirable and the illustrations all that could be desired.

THE GEOGRAPHY OF THE BRITISH COLONIES AND DEPENDENCIES, by W. Hughes and J. F. Williams: London, George Philip and Son. 1892. Price 2s. 6d.

This very handy little volume contains, within the compass of 230 pages, a mass of information relating to "Greater Britain." The book is well and thoughtfully planned, and should prove very serviceable for school and general use. The selection of matter from the enormous mass available is eminently judicious; and the statistics are accurate and recent; and the style is clear and interesting. A feature of the book

worthy of special commendation is the prominence given to means of communication and trade routes.

The variety of type used enables the reader to discriminate easily between the different classes of topics touched upon, whilst the execution renders it easy to read and despite its closely printed pages, not at all fatiguing to the eye.

The book would be found very suitable, especially in conjunction with the Handy Volume Atlas of the British Empire, published by the same firm, for the Technical Examinations in Commercial Geography in this Presidency.

SIMPLE STORIES FROM ENGLISH HISTORY, Longman's 'Ship' Historical Readers, 1893. Book I., 9d.; Book II., 10d.; In one Vol. Price 1s. 6d.; Book III. 1s.

These consist of stories from English History written in a plain style and in very simple words. They are by an English teacher of great experience, and are well suited to the needs of English children from 8 to 12 years of age. Book I. might well be used as a supplementary reader in Lower Secondary Forms in this Presidency, whilst Books II and III would be valuable in Forms IV and V to awaken interest in what is, but too often, a sadly mistaught subject.

We could have wished that the coloured illustrations had been in better taste.

1. NOTES TO TENNYSON'S IDYLLS OF THE KING, by Rev. R. M. Gray, M.A., Bombay. *Nasirwanji M. Cooper*. 1893.
2. NOTES ON KINGSLY'S WESTWARD HO! by Lala Sagar Chand, B.A., Offg. Professor, Government College, Lahore. 1892. Price Rs. 2.
3. NOTES ON TENNYSON'S IDYLLS OF THE KING, Books VI—XII, (Jehangir B. Karani's Annotation Series, No. 9). Bombay. *Jehangir B. Karani & Co. Ltd.* 1893.

1. These Notes have, unfortunately, the appearance of being scamped. Such a simple phrase as "no customary honour" is explained, without the figure however being pointed out, while no notice whatsoever is taken of "In the mid night and flourish of his May"—as if the former were an unusual and the latter an every-day form of expression. "Tarriance" we find correctly explained as "tarrying, delay," but nothing is said about the *status* of the word. The annotator does not seem to know that there are three possible interpretations of "your own" in *Lancelot and Elaine*, l. 1206, and that the one he gives is the worst of the three. Easy expressions are often explained and difficulties slurred

over or entirely ignored. The Introduction is good, but the notes are defective.

2. If *Notes* are to be written explaining English texts to Hindu students, they should invariably be written by Englishmen possessed of long experience in educating the youth of this country. Such men are, no doubt, available, and are naturally enough the best qualified to deal with the subtleties of their own speech. But if the annotator be a Hindu, the best thing he could do would be to follow the example of Mr. Lala Sagar Chaud, who, although himself an experienced educational officer, had the wisdom to have his proofs revised, and some of the more difficult passages expounded, as he tells us in his preface, by competent English scholars. The result is very creditable, and we have now a satisfactory and trustworthy commentary on another great English Classic. The Introduction gives a summary of the novel, contains some shrewd criticism, and is a model of judicial fairness. We don't understand the author's predilection for the spelling *Grenville*,—a name which Kingsley always gives as *Grenvil*, and everybody else as *Grenville*. We also fail to appreciate the spelling—"developes," and such Americanisms as *favor*. What student will understand the epithet "Tarry-brecks" applied to Hawkins? Altogether a capital commentary on *Westward Ho!* It has a map which accentuates the glories of Devon.

3. Whence this *cacothetis annotandi* in Bombay? This work is by an anonymous annotator, who explains the "tarriance", mentioned above, as "stoppage, abode," which shows *his* knowledge of English. Mr. Gray is at least *right*, as far as he goes. We find in the present work, in great profusion, such lucid explanations as, *dint*—blow; *hinder*—forbid; *passionate*—intense; *fluttering*—caressing; *bode*—stayed; *gaunt*—lean. These notes might have been dashed off by a second class F.A., *stans pede in uno*; and we hope that our remarks, bearing on this point, in the preceding notice, will not be forgotten. When will Messrs. Macmillan's series of the *Idylls*, annotated by recognized scholars, be completed, and save our students from these "blind guides"?

PERSIAN PROSOODY, by KM. JHAVERI, M.A.—*Nasirvanji M. Cooper*, Bombay.—1892. Price, Re. 1.

The author has given a very full description of the rules and regulations of Persian Prosody. The subject is one of considerable difficulty and the author is to be congratulated on the clear manner in which he has dealt with it, and for the diligence shown in the selection of excellent illustrations of the various rules. He has quoted aptly from the best poets. The book will be of use to students reading for a degree; it is too advanced for school classes.

MADRAS GOVERNMENT TECHNICAL EXAMINATIONS. APRIL 1893.

• COMMERCE BRANCH.

BOARD OF EXAMINERS.

JOHN ADAM, Esq., M.A., Chairman.

M. R. RY. K. SUBRAMANIA AIVAR, B.A., L.T., A. S. A. A., Teachers' College, Saidapet.

MR. E. C. WOODS SCAWEN, Messrs. Arbuthnot & Co.

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I. BOOK-KEEPING.

ELEMENTARY.—Time—Two Hours.

M. R. RY. K. SUBRAMANIA AIVAR, B.A., L.T.

INSTRUCTIONS TO CANDIDATES.

Each of you will be supplied with two ruled books and you are to write all your answers in the books provided, adding or omitting columns when needed.

No spare books will be supplied and you are to correct errors in your paper by drawing the pen through the erroneous portion and making a fresh entry.

Write your name and register number on the first page of each book and send in to the examiner *all the two ruled books with no sheets added or removed*.

Give the number of the question on each page.

1. From what sources do you collect the necessary information for preparing the Balance Sheet in "Single Entry"?

2. How is the Bill Receivable book posted into the Double Entry Ledger?

3. From the following Trial Balance taken on December 31st, prepare the Profit and Loss and the Balance Sheet and the Capital Account and close those accounts:—

Dr. Rs.		Cr. Rs.
15,600	Cash	10,250
9,765	Bill Receivable	8,640
3,450	Bill Payable	9,870
8,400	House Property	2,400
15,175	Sundry Personal Accounts	11,567
12,400	Goods	7,600
700	Bad Debts	
	Rent	800
2,100	Charges	
800	Depreciation	
800	Interest and Discount	1,200
2,837	Capital	19,700

Value the goods on hand at Rs. 8,500.

4. Journalise the following transactions, post the Journal into the Ledger, prepare the Trial Balance and close the Ledger, preparing the Profit and Loss and the Balance Sheet. The closing entries need not be journalised. Folio references need not be marked.

	RS.
January 1st. Cash on hand	9,800
Cash in bank	15,400
Goods on hand	8,700
Due by Williams & Co.	5,200
" Jones & Brothers	4,500
Due to Kay & Co.	6,700
" Raja & Co.	6,900

January	10th.	Bought goods for a cheque	800
"	20th.	Sold goods to Wilson & Co.	6,000
		And drew on them for the amount @ 30 D/D.	
"	20th.	Accepted Raja & Co.'s draft @ 1 M/D. ...	6,000
February	8th.	Sold goods to Jones & Brothers	3,500
"	9th.	Endorsed to K & Co. Wilson & Co.'s acceptance.	6,000
"	18th.	Received from Jones & Brothers a cheque for	7,800
		And allowed them a discount of	200
"	20th.	Bought goods for cash	8,500
"	28th.	Sold goods and paid proceeds into bank ...	2,000
March	3rd.	Paid our Bill Payable by cheque	6,900
"	15th.	Paid salaries by cheque	875
		And charges from cash	300
"	28th.	Paid rent for January and February	400
		Rent for March yet due	200
"	30th.	Williams & Co., become insolvent and pay into our bank a first and final dividend of annas 14 in the Rupee.	
"	31st.	Allow interest on capital @ 4% per annum. Value goods on hand at	10,000

INTERMEDIATE—FIRST PAPER.—Time—Three Hours.

Mr. E. C. Woods Scawen.

- How would you journalise and post—
(a) Bills receivable.
(b) Bills payable.
- Subsidiary books being essential, state what books may be kept and the reasons for keeping them.
- What is a statement of affairs, and how is it made up?
- What are adventures, inwards and outwards, and how closed?
- Explain single entry and double entry: state which is the better, and why?
- Of what use is the ledger, and what classes of accounts (naming them) does it contain?
- What are invoice books or files, and how are they journalised?
- What is done with the following accounts in each case, at the close of a season, say 31st December?
(a) Balance at bank;
(b) Goods;
(c) Stamp;
(d) Stationery;
(e) Blocks;
(f) Salaries;
(g) Partners' credit balances;
(h) Partners' debit balances;
(i) Interest;
(k) London balance £7235-10-7;
(l) Profit and loss.
- What errors are not checked or detected in balancing the ledger, and how are they to be guarded against?
- Describe the books of account which are necessary in the simplest form of double entry. Prepare specimens of them and state purpose which each is intended to serve.
- State the difference between the mode of entering a transaction in the waste book and in the journal, and what are the two first entries made in the journal by a merchant or tradesman, on commencing business, according to the Italian system of book-keeping.
- What account exhibits a statement of a merchant's assets and liabilities on commencing business? What does the difference between the two sides show, and what accounts are subsidiary to this account?
- Under what title do you record the receipts and disbursements of money, i.e., when you receive a bill, accept a draft, or issue a promissory note?

INTERMEDIATE—SECOND PAPER.—Time—Three Hours.

M. R. Ry. K. SUBRAMANIA Aiyar, B.A., L.T.

INSTRUCTIONS TO CANDIDATES.

Each of you will be supplied, with three ruled books, and you are to make every entry direct into the books provided.

No spare books will be supplied, and you are to correct errors in your paper by drawing the pen through the erroneous portion and making a fresh entry.

Write your name and register number on the first page of each book, and send in to the examiner all the three ruled books with no sheets added or removed.

Give the number of the questions on each page.

1. Journalise the following record of Raman and Co.'s transactions for the first quarter of 1893; post the journal into the ledger; prepare the trial balance; close the ledger; and prepare the profit and loss and balance sheet. The closing entries need not be journalised.

		Rs.
Jan. 1.	Cash on hand	427
	Cash in bank	9,575
	Goods on hand	27,000
	Premises valued at	15,000
	Furniture on hand	1,600
	Four per cent. Government paper for Rs. 10,000 valued at	10,600
	Due by Arthur & Co.	4,750
	Due by Benson & Co.	6,048
	Due to Charles & Co.	13,747
	Due to David & Co.	11,253
10.	Drew on Arthur & Co., at 2 m/d for ... and remitted the bill to David & Co.	3,000
16.	Sold goods for a cheque	2,500
20.	Added two godowns to office premises and paid the cost by cheque	2,600
25.	Consigned to David & Co., consignees' account and risk goods invoiced at	3,500
28.	Accepted David & Co.'s bill at 1 m/d	7,000
Feb. 6.	Sold goods to Henry & Sons	5,000
	and received in payment Benson & Co.'s acceptance due 15th March ... and allowed a discount of	4,850
		150
15.	Half-yearly interest on Government paper collected by bank and placed to our credit	200
16.	Sold to Charles & Co., Rs. 4,000 Government paper at a premium of 7% and goods for	8,000
28.	Paid into bank	250
Mar. 3.	Sundry cash sales remitted to bank	6,000
	David & Co.'s draft honored at bank	7,000
13.	Arthur & Co.'s acceptance for Rs. 3,000 honored.	
15.	Benson & Co.'s acceptance for Rs. 4,850 dishonored; noting charges paid	5
16.	Drew on Henry & Sons at 1 m/d for ... including Rs. 5 for noting and interest	4,880
		25
28.	Benson & Co., pay into our bank	5,000
29.	Salaries and charges paid by cheque and from cash	1,200
		150
	Allow depreciation on premises	260
	and on furniture	10
	Allow interest on capital at 4% per annum.	
	Value goods on hand at	5,500
	Value Government paper on hand at a premium of 6%	

2. Rule a form of cash-book with cash, bank, and discount columns, and enter in it such of the transactions in the foregoing question as will go into that book and close the cash-book on March 31.

3. Messrs. Marsden, Jones, and Smith are partners in business with Rs. 30,000, Rs. 25,000, and Rs. 20,000 standing to the credit of their respective capital accounts at the beginning of a year. The partners withdraw for their private expenses Rs. 1,600, Rs. 1,000, and Rs. 1,200 on 1st April, 1st July, and 1st October respectively. The profits and the losses amount during the year to Rs. 18,100 and Rs. 2,080 respectively before the undermentioned items are entered.

Allow each partner interest on his starting capital @ 5 % per annum and charge interest @ 10 % per annum on each partner's drawings. Allow Mr. Smith the working partner, an annual salary of Rs. 2,500. Set apart one-fourth of the net profit as a reserve fund, and divide the remaining net profit among the three partners in the ratio of their starting capitals.

Prepare the capital and the private or current accounts of the three partners and close all those six accounts at the end of the year. Also prepare the reserve fund, profit and loss, and balance accounts, and close them.

4. Fill in the blanks in annexed account on rent; make the necessary entries in the balance column, extend the interest products, find the balance of interest and the balance of account on March 31, Mr. Retnamudaliar being allowed and charged simple interest at 5 per cent. per annum.

Fill in the blanks in this sheet and return the sheet with your answer books.

Mr. Retnamudaliar in account current with Messrs. Gopal & Co., Madras.

Date.	Particulars.	Dr.	Cr.	Balance.		No. of Days.	Interest products.	
				Amount.	Dr. or Cr.		Dr.	Cr.
1889								
Jan. 9	To goods ...	1,499 10 0	...					
19	By cash ...	...	1,999 14 0					
31	To goods ...	2,749 13 0	...					
Feb. 8	By cash ...	...	2,250 0 0					
25	By bank ...	...	3,000 0 0					
Mar. 12	To goods ...	4,249 15 0	...					
28	To gunny bags..	30 0 0	...					
31	Balance of interest products. :	...	...					
	Balance of interest @ 5% per annum.	...	...					
	Balance of account.	...	...					

MADRAS,
31st March 1893.

(Signature.)

ADVANCED—FIRST PAPER.—Time—Three Hours.

MR. E. C. WOODS-SCAWEN.

1. An owner of six coffee estates (A, B, C, D, E, F) is written to by his Superintendent for Rs. 6,000, for a month's working expenses; the owner sends him a draft on the Coorg Bank, Limited for Rs. 2,500 (which is in the meanwhile entered to Suspense Ac:) and asks the Superintendent to draw on him for the balance and negotiate the draft at his local Bank, and to let the owner have particulars of apportionment of the two drafts among the estates. The Superintendent advises distribution of the amount as follows:—

A 1,500.	D 500.
B 1,000.	E 250.
C 2,000.	F 750.

Show what entries the owner should make in his books.

2. On the 31st December 1892 a merchant finds his interest a/c Rs. 8,792-4-0 at debit—but he knows that a sum of Rs. 17,950-4-10 will be coming in a few weeks. Show the closing entries.

3. X, Y, Z are not partners, but in the course of business they jointly and severally accept bills to the amount of Rs. 15,000: these bills are discounted at the Bank of India, and X, who managed the transaction, paid over to Y and Z each 1/3rd of the proceeds. The discount was Rs. 187-8-0, of which each bore a third share. Required the respective journal entries.

4. In pursuance of an agreement between Tom Jones and myself to speculate together and to share equal gain or loss, the business to be managed by me, I have purchased indigo to the value of £5,000 and given in payment as follows, viz:—

Cash in part...	...	...	...	...	£ 2,000
My draft on James & Co. ...	...	...	...	...	1,000
A bill drawn by Henry & Co. ...	...	...	...	...	1,500

and my own P/N at 3 months date for the balance. Show the Journal entries in my books and for Tom Jones.

5. What is my 1/4 share of gain or loss in the following account of the ship "May Bloom"? Show your work of the ship's account:—

1st January 1892.	Due to me ...	Rs. 9,070 15 0
"	My 1/4 share J value at ...	15,750 0 0
4th "	By cash for freight ...	3,330 9 0
28th "	Do. do. ...	21,540 7 6
4th March 1892.	To cash for wages ...	Rs. 2,500 0 0
10th "	By cash for freight ...	870 5 4
20th "	To cash Sundry accounts ...	4,290 1 1
"	To insurance ...	750 0 0

30th June ... Made up my accounts to-day and charged

Commission on Rs. 28,741-5-10 at 2% on freight, and on Rs. 7,540-1-1 at 2 1/2% on disbursements.

The balance is equally divided between my partner and myself:

The interest on my 1/4 share is ... 393 12 4
and I value my 1/4 share at Rs. 15,000 after allowance of wear and tear.

6. The firm of A, B, and C, was compelled to stop payment on the 1st January 1893: on investigating their affairs the results were as follows:—

Due to sundry creditors ...	£80,000 0 0
Surplus capital ...	10,000 0 0
Gross profits ...	30,000 0 0
Cash in hand ...	11,000 0 0
Due to the firm by sundry debtors ...	34,000 0 0
of which, is good ...	£30,000
is doubtful ...	1,500
is bad ...	2,500

The doubtful debts are estimated to produce	...	£500	0	0
They hold bills of exchange for	...	9,000	0	0
The property is valued at	...	12,000	0	0
The losses amount to	...	6,000	0	0
The trade charges amount to	...	14,000	0	0
A draw from the concern:	...	8,000	0	0
B Do.	...	12,000	0	0
C Do.	...	14,000	0	0

Arrange the items in the form of an official balance sheet and also in the usual mercantile form.

7. A merchant's assets on commencing business in 1892 amount to	...	£50,000	0	0
And his liabilities amount to	...	10,000	0	0
His purchases of cotton amount to	...	19,000	0	0
And the sales of cotton amount to (£2,000 received in 1893).	...	17,000	0	0
The cotton unsold is valued at	...	4,000	0	0
His purchases of sugar amount to	...	18,000	0	0
And the sales to (£5,000 received in 1893)	...	15,000	0	0
Sugar unsold is valued at	...	2,000	0	0
His outlay on charges, salaries, &c., is	...	600	0	0
Cash receipts amount to	...	41,400	0	0
Cash payments amount to	...	13,000	0	0
Bills received amount to	...	18,000	0	0
Bills disposed of amount to	...	9,000	0	0
Bills issued by him amount to	...	13,000	0	0
And he has redeemed bills for	...	11,000	0	0
He owes W. Jones	...	7,000	0	0
Jones owes him	...	6,000	0	0

Required the present amount of his assets and liabilities: his gains and losses his net capital

ADVANCED SECOND PAPER.—Time—Three Hours.

M. R. RV. K. SUBRAMANIA AIVAR, B.A., L.T.

1. In drawing up the accounts of a company, how would you deal with such items as: (1.) legal and other charges incidental to the purchase of business premises; (2.) insurance on premises; (3.) repairs of dilapidations; (4.) premiums on fresh issue of shares; (5.) commissions due but not paid; (6.) insurances paid on consignments inwards on account of consignors; (7.) time discounts; (8.) trade discounts; (9.) interest on overdue acceptances.

2. (a) How is the bank day-book kept? From what sources does the day-book writer get his information?

(b) Describe the scope and utility of the weekly discount balance book, the weekly general balance book, the discount journal, and the discount ledger. (No patterns need be ruled, in answering this question.)

3. A Madras trader opening up a French business enters and invoices his sales and draws for the goods supplied in French currency. Later on, self-same bills pass to his credit with his Madras bankers in Indian currency. How will he hold his books in balance?

4. (a) What is the fundamental difference between a revenue account and a cash account?

(b) Prepare sample revenue accounts and balance sheets as on December 31, 1892, on behalf of an association of accountants or reporters, that has been in existence for some years, that publishes a monthly journal and collects annual subscriptions from its members and from the subscribers to the journal. Separate accounts are required for the association and the journal.

5. Prepare examples of the trading account and the profit and loss account that you expect to be kept by—

(1) a trader who buys and sells manufactured articles.

(2) a manufacturer who buys raw materials, manufactures them, and sells the manufactured articles wholesale.

6. Trial balance agrees; and you complete the trading account. You find a larger profit shown than may be expected from a comparison of former years. What investigation would you pursue to satisfy yourself upon this score?

7. (a) Explain why the following accounts are raised by an auditor in a case when he attends frequently but does not completely audit the books of account of a client—who is a general merchant:—

Trade debtors' account.

Trade creditors' account.

State, without ruling patterns, how the books should be kept for furnishing the necessary particulars.

(b) State the necessary reserves to be made at stock-taking in relation to the following:

Sundry trade creditors upon open accounts.

upon bills payable.

" cash creditors.

" trade debtors upon open accounts.

" " upon bills receivable in hand.

" " upon bills receivable discounted but not matured.

How would you show said reserves on balance sheet? Prepare such a balance sheet.

8. Name the principal impersonal accounts which exist in a manufacturing concern and set forth how they should be dealt with at every stock-taking.

9. (a) Name the more important of the books you would open for a public company taking over a manufacturing business, and explain their uses, without ruling patterns.

(b) Rule patterns of the warehouse order-book and the warehouse stock-book.

10. A commission agent receives goods from various consignors for sale on commission and remits net proceeds every week. Railway and other charges on the goods are paid by the consignee and deducted from account-sales. What books would you open for him. Briefly indicate the scope of each without going into unnecessary detail. The columns in each book must be named and the nature of the entries in each column explained.

(To be continued.)

SCHOOL LIBRARIES.

A LIST OF SUITABLE BOOKS.

(Selected from the List published by the School Master.)

1.—FICTION.

Author.	Title.	Publisher.	Price. s. d.
Adams, W. H. D.	Shore and Sea	Hodder & Stoughton	2 7½
" H. C.	Boy Cavaliers	Routledge	0 9
Addison	Sir Roger de Coverley	Bell & Sons	0 9
Aesop's Fables	.....	Murray	1 1½
Aimard, Gustave	Tiger Slayer	Ward, Lock	0 9
Ainsworth, Harrison	Tower of London	Routledge	0 9
Andersen, Hans	Fairy Tales	Warne	0 9

Author.	Title.	Publisher.	Price s. d.
Baker, Sir Samuel	... Cast up by the Sea	... Macmillan	... 4 6
Brabourne, Lord	... Moonshine	... Routledge	... 1 10½
"	... Queer Folk	...	... 1 10½
"	... Uncle Joe's Stories	...	... 1 10½
Church, A. J.	... Stories from Homer	... Seeley	... 3 9
"	... Stories from Virgil	...	... 3 9
"	... Stories from Herodotus	...	... 3 9
"	... Three Greek Children	...	... 2 7½
"	... Heroes and Kings	...	... 1 1½
Doyle, A. Conan	... Micah Clarke	... Longmans	... 2 7½
Grimm's Fairy Tales	...	... Ward, Lock	... 0 9
Haggard, H. Rider	... Allan Quatermain	... Longmans	... 2 7½
Hughes, Tom	... Tom Brown's School Days	... Macmillan	... 1 6
Kingsley, C.	... Westward Ho!	... Macmillan	... 2 7½
"	... Hereward the Wake	...	... 2 7½
"	... The Heroes	...	... 2 7½
Lang, Andrew	... Blue Fairy Book	... Longmans	... 4 6
"	... Red Fairy Book	...	... 4 6
"	... Green Fairy Book	...	... 4 6
Reid, Captain Mayne	... Scalp Hunters	... Routledge	... 1 6
"	... Rifle Rangers	...	... 1 6
Robinson Crusoe	...	... Routledge, Bell & Sons.	... 0 9
Russell, Clark W.	... Frozen Pirate	... Sampson Low	... 1 10½
Sandford and Merton	...	... Ward, Lock	... 0 9
Scott, Sir Walter	... Talisman	... Black	... 1 6
"	... Quentin Durward	...	... 1 6
"	... Ivanhoe	...	... 1 6
"	... Pirate	...	... 1 6
"	... Tales of a Grandfather 2 (vols)	... Routledge	... 1 6
Stanley, H. M.	... My Kalulu	... Sampson Low	... 1 10½
Stevenson, R. L.	... Kidnapped	... Cassell	... 2 7½
"	... Treasure Island	...	... 2 7½
Stowe, Harriet B.	... Uncle Tom's Cabin	... Nisbet	... 1 6
Swiss Family Robinson	...	... Heywood	... 1 6
Verne, Jules	... From the Earth to the Moon.	... Routledge	... 0 9
"	... 20,000 Leagues under the	...	...
"	... Sea	...	... 0 9
"	... Round the Moon	...	... 1 6
"	... Round World in 80 Days	...	... 0 9
"	... Three Englishmen and Three Russians	...	... 0 9

II—BIOGRAPHY.

Arnold-Forster, A. & M.	... Born a King	... Cassell	... 0 9
Barrow, Sir John	... Life of Peter the Great	... Nimmo	... 2 7½
Besant, Walter	... Life of Captain Cook	... Macmillan	... 1 10½
Bompas, George C.	... Life of Frank Buckland	... Smith, Elder	... 3 9

Author.	Title.	Publisher.	Price s. d.
Bruce, Charles	... Inspiring Lives	... Nimmo	... 1 10½
"	... John Lawrence	...	... 1 10½
Butler, Sir W.	... Gordon	... Macmillan	... 1 10½
Columbus, Life of	...	... Bell & Sons	... 0 9
Corbett, Julian	... Francis Drake	... Macmillan	... 1 10½
Edmonds, H.	... Well Spent Lives	... Kegan Paul	... 2 7½
Famous Boys	...	... Ward, Lock	... 1 1½
From Log Cabin to White House	...	... Ward, Lock	... 0 9
Galileo, Story of	...	... Nelson	... 0 9
Heroes of Invention and Discovery	...	... Nimmo	... 1 6
Heroes of the Desert	...	... Nelson	... 2 7
Hughes, Tom	... Livingstone	... Macmillan	... 1 10½
Lives of Famous Travellers	...	... Nimmo	... 1 6
Markham, Clement	... Famous Sailors	... Cassell	... 1 10½
Napoleon, Life of	...	... Nimmo	... 2 7½
Risen by Perseverance	...	...	... 1 6
Smith, G. Barnett	... Life of Queen Victoria	... Routledge	... 0 9
Southey, Robert	... Life of Nelson	... Bell	... 0 9
Tomlinson, E. M.	... Benjamin Franklin	... Cassell	... 0 9
Towle, G. M.	... Drake	... Nelson	... 1 1½
"	... Sir Walter Raleigh	...	... 1 1½
"	... Pizarro	...	... 1 1½
"	... Magellan	...	... 1 1½
Wilson, Sir Charles	... Lord Clive	... Macmillan	... 1 10½

III.—HISTORY.

Alexander, Mrs.	... Heroes of the Crusades	... Griffith, Farran	... 1 10½
Clarendon's History of the Rebellion	...	... Percival	... 1 0
Corner, Miss	... History of Ireland	... Dea	... 1 10½
Freeman, E. A.	... Old English History	... Macmillan	... 4 6
Goadby, E.	... England of Shakespeare	... Cassell	... 1 10½
Great Historic Events	...	... Chambers	... 1 10½
History of Scotland	...	... Percival	... 1 1½
Hughes, Thomas	... Alfred the Great	... Macmillan	... 4 6
Mackenzie, R.	... The Nineteenth Century	... Nelson	... 2 7½
Picturesque History of England	...	... Philip & Son	... 3 9
Pollard, Mrs.	... True Stories from Greek History	... Griffith Farran	... 1 10½
"	... True Stories from Roman History	...	... 1 10½
Potter, F. Scarlett	... Heroes of the North	... S.P.C.K.	... 2 7½
Ranking, B. M.	... Stories from Italian History.	...	... 1 1½
Stories in American History	...	... Nelson	... 2 7½

169

IV.—POPULAR SCIENCE.

Author.	Title.	Publisher.	Price. s. d.
Ball, Sir Robert S.	A Romance of the Moon	S.P.C.K.	1 10½
" "	Starland	Cassell	4 6
Buckland, Frank	Animal Life	Smith, Elder	3 9
" "	Curiosities of Natural History, 4 Series	Bentley	2 7½
Buckley, Arabella B.	Fairy Land of Science	Stanford	4 6
" "	Through Magic Glasses	"	4 6
Buffon's Natural History	.....	Warne	0 9
Burnley, James	Romance of Invention	Cassell	1 10½
Drawin, Charles	Voyage of a Naturalist	Murray	2 7½
Frith, Henry	Triumphs of Steam	Griffith, Farran	2 7½
" "	Triumphs of Modern Engineering	" "	2 7½
Giberne, Agnes	World's Foundation	Seeley	3 9
" "	Sun, Moon, and Stars	"	3 6
" "	Among the Stars	"	3 9
Gosse, P. H.	Romance of Natural History.	Nisbet	1 6
" "	Land and Sea	"	2 7½
Green, A. H.	Birth and Growth of Worlds	S.P.C.K.	0 9
Kingsley, G.	Madam How and Lady Why.	Macmillan	2 7½
" "	Glaucus	"	2 7½
Lee, R.	Anecdotes of Animals	Griffith, Farran	2 3
" "	Anecdotes of Birds and Fishes	"	2 3
Lodge, Oliver	Pioneers of Science	Macmillan	4 6
Lubbock, Sir John	Chapters in Natural History	National Society	1 6
" "	Intelligence of Animals	Kegan Paul	3 9
" "	Beauties of Nature	Macmillan	4 6
" "	Flowers, Fruits & Leaves	"	3 7½
" "	Ants, Bees, and Wasps	Kegan Paul	3 9
Macadam, S.	Chemistry of Common things	Nelson	1 1½
Maury's Physical Geography of the Sea	.....	Nelson	3 0
Natural History Rambles:—			
In Search of Minerals	.....	S.P.C.K.	1 10½
Lakes and Rivers	.....	"	1 10½
Lane and Field	.....	"	1 10½
Mountain and Moor	.....	"	1 10½
Ponds and Ditches	.....	"	1 10½
The Sea Shore	.....	"	1 10½
The Woodlands	.....	"	1 10½
Underground	.....	"	1 10½
Proctor, R. A.	Half Hours with the Stars	Allen	2 7½
Tidy, C. M.	Story of a Tinder Box	S.P.C.K.	1 6

Author.	Title.	Publisher.	Price. s. d.
White, Gilbert	Natural History of Selborne	Warne	1 6
Wood, Rev. J. G.	My Back Yard Zoo	Isbister	1 10½
" "	Romance of Animal Life	"	2 7½

V.—TRAVELS AND ADVENTURES.

Amazon and its Wonders	.....	Nelson	1 1½
Anson's Voyage Round the World	.....	Nimmo	1 6
Armada, Stor. of	.....	Nelson	1 1½
Baker, Sir Samuel	True Tales for my Grandsons	Macmillan	2 7½
" "	Eight Years in Ceylon	Longmans	2 7½
Ballantyne, E. M.	Hudson Bay	Nelson	2 7½
Barker, Lady	Station Life in New Zealand	Macmillan	2 7½
Bussac, Lady	Voyage in the Sunbeam	Longmans	2 7½
" "	Three Voyages in the Sunbeam	"	1 10½
Bruce, Charles	Stirring Adventures in African Travel	Nimmo	1 10½
" "	Graphic Scenes in African Story	"	1 10½
Bruce's Travels in Abyssinia	.....	"	1 6
Burnaby, F.	Ride to Khiva	Cassell	1 1½
Cameron, Commander	In Savage Africa	Nelson	3 9
Cook's Voyages Round the World	.....	Nimmo	1 6
Darwin, Charles	Voyage of H.M.S. Beagle	Nelson	3 0
Drake's Voyage Round the World	.....	Nimmo	1 6
Franklin and North-West Passage	.....	Philip & Son	3 4½
Gibraltar and its Sieges	.....	Nelson	1 1½
Gilmore, Parker	Travel, War, and Shipwreck	Griffith, Farran	1 10½
Humboldt's Travels	.....	Nelson	1 1½
Isles of the Pacific	.....	Cassell	1 10½
Jones, M.	Travels in Tartary	Nelson	0 9
" "	Dr. Kane, the Arctic Hero	"	1 1½
Kane, Dr.	The Far North	Nimmo	2 6
Knollys, Colonel	Victoria Cross in India	Dean	1 1½
" "	Victoria Cross in the Crimea	"	1 1½
Livingstone in Central Africa	.....	Philip & Son	3 4½
MacGregor, John	1,000 Miles up Rob Roy Canoe	Sampson Low	1 10½
Mungo Park. Life and Travels of	.....	Nimmo	1 6
Mungo Park and the Niger	.....	Philip & Son	3 4½
Russell, W. Clark	Dampier's Voyages	Macmillan	1 10½
Search for Franklin	.....	Nelson	0 9
Stanley, H. M.	How I found Livingstone	Sampson Low	2 7½

Author.	Title.	Publisher.	Price. s. d.
"	Through the Dark Continent	"	2 7½
St. Johnston, A.	Camping among Cannibals.	Macmillan	3 4½
Waterton, C.	Wanderings in South America	Nelson	3 0

VI.—GAMES.

Association Football	.....	Bell	0 9
Boys' Handy Book of Games	.....	Ward Lock	1 1½
Grace, Dr. W. G.	A Handbook of Cricket	Rel. Tract Society.	1 6
Rugby Football	.....	Bell	0 9
Sports and Pastimes	.....	Cassell	2 7½
Steel, A. G.	Cricket	Routledge	0 9

VII.—PICTURE BOOKS.

Animal Kingdom, Picture Gallery of. Part I.	.....	Gill & Sons	2 7½
" " " " " II.	.....	"	2 7½
" " " " " III.	.....	"	2 7½
Pictorial Architecture of Greece and Sicily	.....	S.P.C.K.	3 0
" " " " British Isles	.....	"	3 0
" Geography	.....	"	3 9
" Tour of the World	.....	Warne	4 6
" Treasury of Famous Men	.....	"	4 6
Picture Natural History of Birds	.....	Routledge	1 10½
" " " Animals	.....	"	1 10½
" " " Fishes	.....	"	1 10½
" History of England	.....	"	1 10½
Picturesque England	.....	Warne	4 6
" " Scotland	.....	"	4 6
Weir, Harrison	Birds, Beasts and Fishes	Routledge	1 10½

VIII.—MISCELLANEOUS.

Smiles, Samuel	Self-Help	Murray	4 6
"	Character	"	4 6
"	Thrift	"	4 6
"	Duty	"	4 6

INDIAN STUDENTS IN ENGLAND.

In the late Competitive Examination for the Indian Medical Service, Dr. Bholu Nath was among the successful candidates, and he has proceeded to Netley.

In the Society of Apothecaries' Examination, T. M. Nair, (Madras, Edinburgh, and St Mary's), has passed in Midwifery.

In the recent Preliminary Scientific (M. B.) Examination of the University of London, Shaikh Abdur Ruzzak, Guy's Hospital, passed in Biology.

THE INDIAN JOURNAL OF EDUCATION

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[No. 78]

The Editor has to remind all LITERARY correspondents, as well as publishers forwarding books, magazines, etc., for review, that, to ensure attention, they should be addressed to him at PACHAIVATTA'S COLLEGE, MADRAS; and, for publication in the succeeding issue, should reach him not later than the 20th of each month. All BUSINESS communications should be addressed to the Publisher.

EDITORIAL NOTES.

A new Editor fills the chair of *The Indian Journal of Education*. The first six months of the Year of Grace 1893 have been fraught with sudden and eventful change in the history of this Journal. The first number for the current year was edited by Mr. Denham who, with his wide knowledge of Pedagogics in many lands added to his singular ability and energy, had for a long time successfully guided the destinies and increased the influence and popularity of the Journal. The four succeeding numbers were edited by Mr. Adam, whose long and intimate acquaintance with journalistic work, together with his high educational standing, eminently qualified him for the editing of an educational Journal. *Discessit, heu! citius.* After four short months, before he had thoroughly settled down to his work, "the whirligig of Eastern change, urgent private

affairs, and what not" have called him away from our shores, and "with forced fingers rude" torn him from the Editorship of, but we are happy to inform our readers not from all connexion with, the Journal he loved so well and conducted for so short a span with such signal lustre. Mr. Adam's brief but glorious Editorship will be long remembered by the fact that he first enlarged the scope of the Journal from provincial smallness to imperial grandeur.

* * *

It is not without considerable anxiety that the present Editor has been induced to resign the little leisure left him in the midst of a busy career and seat himself in the chair just vacated by an Editor of the varied attainments and deservedly high literary reputation of Mr. John Adam. That anxiety is increased when he considers the high standard of excellence attained by the Journal under his two immediate predecessors—a standard which he is now called upon to maintain. The Editor of a new Journal can fix his own standard, but the new Editor of an old Journal must either accept the standard handed down to him, or raise that standard; for, just as in the vocabulary of youth there should be no such word as "fail," so "retrogression" is a word that should never be heard of in connexion with the vocabulary of journalism.

* * *

It is the intention of the present Editor, in conducting this Journal, to adhere in a general way to the lines laid down by Mr. Adam in the February number. While he retains Pedagogy pure and simple, referring exclusively to the teacher and his art, as being always and necessarily an essential feature of the Journal, he hopes nevertheless to gild the pedagogic pill and render it more palatable to the general educational reader by surrounding it with a crust of interesting—perhaps even amusing—news, episodes, and anecdotes, borrowed from the educational life and experience of India and other lands. He will try to merit a continuance of the patronage of present supporters, and to secure the adhesion of others to whom the Journal is as yet unknown, by an earnest effort to meet the tastes of all. *Quot hominum tot sententiae*. Nevertheless, provided they are fairly reasonable, the Editor intends to do his utmost to meet the varied demands of an ever-growing circle of cosmopolitan supporters. And last, but not least, he will piously

respect the old traditions of the Journal, and under all circumstances endeavour to maintain its high and honoured standard of fairness and freedom.

* * *

The retiring Editor has good-naturedly put on record, in the very last editorial note written by him in this country, that his successor's "trenchant pen is not unknown to readers of the Journal." That successor has, indeed, been at work, off and on, for over five years in these pages. More than this, some of the back numbers he is responsible for editorially, although they have appeared under other names; and so the new Editor, laying aside his mask, stands revealed after all as an old friend, and as such salutes the readers of the Journal.

* * *

During these five years he has penned the praises of honest educational work conscientiously performed, and, irrespective of its origin, has greeted with hearty welcome honest literary labour conscientiously executed, but has been unsparing in his denunciation of error, sham, and slipshod work in Education and in Literature, no matter who may have been the transgressor. Such as he has been, such will he be, regardless alike of fear or favour.

* * *

Turning from preface to educational news, we observe that the great burning question which had been so long agitating the minds of the Indian educational and general public has been settled at last by the appointment of Mr. M. Seshagiri Sastriyar, M.A., as Professor of Sanskrit and Comparative Philology at Presidency College, Madras. Public feeling all over India grew so tempestuous at the idea of another European being appointed over the head of Mr. Seshagiri Sastriyar that the usual routine was ruthlessly set aside, and the question was suddenly raised into one of high State policy and of British loyalty to public pledges. Questions were asked in Parliament. A Secretary of State was reminded of a Royal Proclamation. Telegrams flashed to and fro between Westminster, Fort St. William, and Fort St. George. Was "British faith" to be the modern equivalent for "*Punica fides*"? Were the 250 millions of Hindustan to be allowed to join in the old French chorus of "*Perfide Albion*"? No; Britain has been loyal to her pledges; and the distinguished Hindu scholar, who

has just been appointed by Government to one of the most important Professorships in India in preference to a European scholar of approved worth and merit and of European and Asiatic reputation, has indeed reason to rejoice in his triumph.

* * *

We state the case briefly for the benefit of those unacquainted with the details. Mr. Seshagiri Sastriyar was acting as Sanskrit Professor more than twenty years ago, and it was from him that Dr. Oppert took over charge of the Professorship of Sanskrit on his first arrival in this country. The declared policy of Government is to encourage natives of India to devote themselves to the higher departments of education, and to reward by promotion to the highest posts such of them as distinguish themselves in that line. Mr. Seshagiri Sastriyar has an unrivalled knowledge of Sanskrit, and was naturally enough looking forward through all these years to succeed Dr. Oppert. A few years ago the Madras Government required the services of an accomplished Sanskrit scholar to decipher the inscriptions on the monuments and temples of Southern India. Dr. E. Hultzsch, possessing in an eminent degree all the necessary qualifications, was appointed to be the new Government Epigraphist. Dr. Hultzsch, besides being a sound Sanskrit scholar, is also well versed in the ancient classics and modern languages of Europe, and is acquainted with some of the Indian Vernaculars. To the Madras Government it seemed that he would make a highly eligible successor to Dr. Oppert, and so they decided to recommend him for the post. On this decision becoming known, there arose in the Indian Press such an agitation and hullabaloo as has seldom if ever been witnessed in any country in connexion with an educational appointment. The Professorship combines two things—Sanskrit and Comparative Philology. Dr. Hultzsch has had a deep and thorough training in Latin and Greek and possesses a sound knowledge of Sanskrit. For the purposes of Comparative Philology, these three languages are undoubtedly far and away the most valuable languages in the Aryan family of speech. Mr. Seshagiri Sastriyar on the other hand possesses a singularly deep and comprehensive knowledge of Sanskrit, and is himself actually a Sanskrit graduate. Both have a good knowledge of many vernaculars—the one of India, the other of Europe and India. Thus did the appointment tremble in the balance, when the Secretary of State for

India demanded to know whether there was in the Madras Presidency a native of India competent to fill the post. "Yes" was the reply; and so Mr. Seshagiri Sastriyar is the new Professor of Sanskrit, and public faith has been preserved.

* * *

This appointment may fairly be regarded as a great test case which in its far-reaching consequences should largely affect the future of Indian Education; and the decision arrived at should be regarded by all who have at heart the true interests of Indian Education as a decision of happy augury. For the British Government by its action has made it as clear as noonday that talented Indian graduates devoting their energies to education may aspire to the highest posts in the service. And the spectacle of two such eminent Hindu scholars as Rai Bahadur P. Rangnada Mudaliyar, M.A., and Mr. M. Seshagiri Sastriyar, M.A., holding at Presidency College, Madras, two of the most important Indian Professorships in the gift of the Crown, should in itself be a sufficient inducement to distinguished Indian graduates to turn in future to education as a profession worthy to be adopted, and to turn away from such an over-crowded profession as the Law.

* * *

More than this, the new appointment is a further decisive proof, if indeed proof were needed after the Central Finsbury election and the India Councils Act, that under the flag of England, preferment or favour does not go by "the racial distinction of black and white", to which we were obliged to refer in our last issue, but only by intrinsic merit; or, if it does, the prejudice is in favour of the native. Similarly, in weighing the worth and determining the merit of literary performance, the generous-minded English critic is only too glad to find a work by a native of India to which he can conscientiously award unreserved praise; but no feelings of tenderness should for a moment prevent him from doing his duty in exposing the errors of any work that is not sound to the core. Those who advance the *varna* plea are non-suited. But in justice to the fair-minded people of this country, we feel bound to confess that we have never yet heard that plea advanced by other than a few fledgling authors whose literary achievements we have found it our duty reluctantly to condemn.

* * *

Setupati the Rajah of Ramnad and the Rajah of Kallikot have been following, as may be seen in our "Indian Notes," the recommendations made by His Excellency The Marquis of Lansdowne, Viceroy and Governor-General of India, when presiding last November at the celebration of the Golden Jubilee at Pachaiyappa's College,—recommendations emphasized in the same Hall on the very next day, "Pachaiyappa's Commemoration Day," by Dr. Duncan, in a fine speech that derived unusual importance from its being his first public utterance with the blushing honours of a well-won Directorship fresh upon him. Both speakers urged the strengthening of existing, rather than the multiplication of new, institutions. Lord Lansdowne instanced the founding of Professorial Chairs, to be called after the donors, at Pachaiyappa's College, as being one of the worthiest ways in which money could be spent by the Hindu Princes and Noblemen of Southern India; since sums utterly inadequate to found a new, and perhaps ephemeral College, or even School, would be more than sufficient to found a new and permanent Professorship in an institution already popular and strong. We are glad to note that the words of the Governor-General and of the Southern Director have already, in the short space of six months, begun to bear fruit, and we hope now to see others soon follow the example thus set by two enlightened Rajahs.

Lt.-Col. J. R. Watson, S. C. (*retired*), Coonoor, Nilgiris, has entered upon a new and laudable departure from the old, evil, traditional system by which generations of Anglo-Indians have had to learn the Vernaculars of this country. His speciality is Hindustani. The *Munshi*, with his unscientific knowledge of his own language, and his half knowledge of English, is to be superseded; and the language is to be taught at last on a rational system, at moderate rates, and in the finest climate in India, by an English gentleman who brings to his work a wide and varied experience of Hindustani in many capacities—Military, Civil, Judicial and Political. A notice of his prospectus will be found under our Indian Notes. Military and Civil, official and nonofficial, gentlemen desirous of learning Hindustani ought to be grateful to Col. Watson for the easy road he is opening out to them for acquiring a thorough mastery of the language.

Colonel Watson is a pioneer in the Educational field. We heartily wish success to his endeavours, and hope soon to see others equally enterprising and equally capable, go beyond "the *Lingua Franca* of the East," and apply Col. Watson's method to the more important vernaculars of the Madras and other Presidencies; as the vernacular of his district is useful to every man, but especially should it be thoroughly mastered by every Anglo-Indian official who has at heart the good of the people.

It may not as yet be known to all the Principals of the various Colleges, and Head Masters of the various High Schools in the Madras Presidency and the adjoining Native States that the old "Madras Physical Training and Field Games Association", to the annual competitions held by which they have for years been sending up competitors, was, at the recent annual meeting, renamed and reorganized to suit its altered conditions. For about twelve years it had rendered yeoman's service to the Educational Institutions of the Presidency, turning out year by year properly trained and certificated gymnastic instructors. The Association, aided by the patronage of Government, has succeeded in making the gymnastic instructor a regular and indispensable member of every school staff under the Madras Director. Hundreds of instructors all over Southern India owe their training to the Association. But when the expenses increased and the income diminished, the Association was forced to consider the situation, and from the first of last October it withdrew from all connexion with gymnastic training. For the good work it has done in this direction it has received the thanks of Government and of the Education Department. Government, to which this class of work more properly belongs, has taken over this part of the former functions of the Association. At the same time it took over, at half valuation, all the gymnastic apparatus situated in the gymnasium formerly maintained by the Association in the People's Park.

The gymnastic training and the gymnastic apparatus of the Association have alike been transferred by Government to their natural home, the Teachers' College, Saidapet, the head quarters of all training in the Presidency. Physical training is undoubtedly a very important part of education, and the budding young ped-

agogues of the Teachers' College may now become doubly equipped by receiving gymnastic instruction hand in hand with professional training, and may by a little extra application easily win certificates in both. And here we desire to point out once for all that all communications relating to gymnastic training, certificates, and appointments, should in future be addressed to "The Principal, Teachers' College, Saidapet."

* * *

"The Madras Athletic Association" is the new title conferred on the Association by the collective wisdom of an Annual General Meeting of its members. The new title has at least the merit of brevity as compared with the "learned length and thundering sound" of its predecessor. But the new title, like the English alphabet, is both redundant and defective. It is redundant because Athletics, as commonly understood, embrace things that do not come within the purview of the Madras Association; and it is defective, as Cricket, Lawn Tennis, and Gymnastics (both English and Native), essential features of the Madras competitions, are never reckoned in sporting circles among Athletics. At its next rebirth the Association may perhaps be described by some more accurate epithet.

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We publish elsewhere, for the information of all the College and School Sports Clubs in Southern India, the new rules of "The Madras Athletic Association." It will be seen at a glance that the changes are great and radical. The name is altered. Gymnastic instruction ceases. The Executive Committee is abolished. The General Committee is cut down by half, and called "The Managing Committee." We no longer find two Honorary Secretaries and one Honorary Treasurer. A single "Honorary Secretary and Treasurer" moves the springs of the Association. For entries from College Departments, Principals have in future only to certify that the students are *bonâ fide*. Certificates for the two terms or twelvemonth preceding the annual competitions are no longer required from College students, but only from High School pupils. An age limit has been introduced. Apart from the age limit, all Junior competitions are restricted to High Schools. In Tennis, High Schools can henceforth send in two teams, one for the Senior and one for the Junior competitions, in doubles,

but the same competitor cannot compete in both. The annual subscription for membership has been reduced to five Rupees, and all distinction between Madras and Mofussil members has been abolished. We hope that the lower rate of the subscription will induce many, who have hitherto kept aloof, to join the Association.

* * *

A serious defect, which we should like to see remedied, has been touched upon by "L," in the *Indian Nation* of April 3rd. He says "One is surprised to examine the M.A. text-books in Sanskrit. Who ever thinks of including Philosophy, Law, Jurisprudence and Science in Literature proper? And the University is doing nothing else when setting books for the M.A. Examination in Sanskrit. Literary tastes can hardly grapple with the *Gita* or the *Upanishads*; proportion and beauty and Ruskin's categories—what have they to do with the jejune matter of *Manu-samhita*? May I not now bring my proposal on the tapis? For the sake of consistency, split up Sanskrit into two, if not into more. If Ethics and Psychology are distinct studies, if Optics and Molecular Physics have nothing in common between them, if Organic Chemistry is as distinct from Inorganic Chemistry as Latin is from Sanskrit or Sanskrit is from English, what logic is that that huddles together studies so widely divergent as (1) the philosophy of the *Gita* and the *Upanishads*, and the technical wrangle of the schoolmen, (2) the institutes of the Brahmins as found in the *Smritis* and the *Samhitas*, forming a complete cycle of Law, Jurisprudence and Sociology, and (3) Literature as in the luscious utterances of a Kalidas or the analytic incisiveness of a Bhavabhuti? No parallel of including Burke or Mill, Carlyle or Emerson in pure literature will hold here. Who will say that the *Gita* is to be solely read for its literary merits, or the *Upanishads* as a convenient storehouse of archaic words?" Here is a valuable suggestion which we hope to see accepted by the Syndicates of the Indian Universities, when in future prescribing Sanskrit texts.

* * *

It is a remarkable fact that the University of Cambridge, which is commonly regarded as being in advance of Oxford in educational theories and movements, should have seen unmoved the famous Oxford Statute of 1887 with reference to the Universities of India

and the Colonies. When an Indian or Colonial University has been admitted to the privileges conferred by this Statute, any person who has pursued during two full years the course of study prescribed by such University, and has passed all the Examinations prescribed by it in connexion with that course, may, without having been previously matriculated, be admitted to the First Public Examination in the Oxford University; and if he passes that Examination, and matriculates not later than Michaelmas Term next following, he is absolved from Responsions, and may, as regards all provisions affecting academical standing, reckon the Term in which he matriculates as the fifth Term from his matriculation. If further he obtains Honours at the First or Second Public Examination, he may be admitted B.A. after eight Terms of academical residence, provided he has then passed his Final Examination. The result of this Statute is that the privileged Indian student saves a year at Oxford by being enabled to take his Degree in two years instead of three; since, unlike the Indian University year, which has only two Terms, the Oxford year has four. Cambridge saw all this, but has hitherto shown no sign of moving in the same direction, and Oxford alone holds out this privilege to the Indian University student.

* * *

Calcutta was the first of the Indian Universities to take advantage of the privilege thus held out, and thereby manifested its zeal for the welfare of those of its students who for various reasons repair to England and go through an English University course. Calcutta was admitted to the privileges just mentioned, on May 21st, 1889. The Punjab University followed on the 29th of the following October; and Bombay came last on November 4th, 1890. Madras and Allahabad still lag in the rear. Thus far, although Calcutta led the way, two other Indian Universities have been equally careful of the interests of their students. But Calcutta has now left all her sisters behind. As pointed out in our February issue, the University of London has acceded to the request of the Government of India that its Intermediate Examination in Arts and its B. A. Examination may be held in Calcutta. No London University Examination higher than Matriculation has hitherto been held in India.

For the holding of the London University Matriculation Examination at Indian centres the reasons are numerous and cogent. Indian students going to England do so in order to enter one of the learned professions, and to receive the highest instruction available for that profession. Now the Matriculation Examination of the University of London is accepted (a) by the College of Surgeons, (b) by the Incorporated Law Society, and (c) by the Pharmaceutical Society, in lieu of their Preliminary Examinations. It also exempts candidates for admission to the Royal Military College from the Preliminary Test, except in Geometrical Drawing. And it is among those Examinations of which some one must be passed (1) by every Medical Student on commencing his professional studies; and (2) by every person entering upon Articles of Clerkship to a Solicitor, —any such person who may have matriculated in Honours or in the First Division being entitled to exemption from one year's service. Thus it procures many exemptions of great value to an Indian student who wishes to economize the brief time at his disposal in England.

* * *

The next higher examination in the Arts course of the London University is the Intermediate Arts Examination. This corresponds to the First Examination in Arts, commonly called "The F. A. Examination," of an Indian University. This Examination does not, however, open out any new exemption that has not been already secured by passing the London Matriculation Examination.

* * *

Bachelors of Arts of the University of London, who enter upon Articles of Clerkship to a Solicitor after graduation, are admissible as Solicitors after three (instead of five) years' service, and receive some small exemptions if they take up Theology at King's College, London. These are the only two advantages extended to graduates that are not already gained by Matriculation, and to the ordinary Indian student they are both equally valueless.

* * *

The great advantage of the London Arts Examinations, as far as the Degree, being held simultaneously in London and in Calcutta is that students of the latter University can prepare nearly *pari passu* for the Examinations of both Universities. The London curriculum is no doubt longer and harder; but the Indian student,

at the end of the course in his own Bengal College, may now not only graduate in Calcutta but, if he is smart enough, may likewise have the satisfaction of graduating almost simultaneously at an English University. If he then wins a Government of India or other Scholarship and proceeds to England for special training, his position is much superior to, and his future work much easier than, that of the ordinary Indian Graduate.

* * *

One disability, however, all students outside Great Britain, Indian and Colonial alike, are equally subjected to. They are excluded from all the Honours examinations, and from all Scholarships, Exhibitions, and Prizes offered by the University to candidates examined in the United Kingdom. Only the Pass Examinations are allowed to be held outside the British Isles.

* * *

Whether the other Indian Universities are to follow in the wake of Calcutta and apply to have the London University Intermediate Arts and B.A. Degree Examinations held at their different centres is a problem to be settled ultimately not by the Universities in question, but by the attitude of the students themselves. But whatever may be done regarding this, there is one point about which there should be no hesitation. The students of the Universities of Bombay, Calcutta and the Punjab, enjoy advantages at Oxford that are now denied to the students of the Universities of Madras and Allahabad. This is not as it ought to be, and we hope to see the authorities of the two latter Universities take such action as will, at an early date, place their students on a footing of equality in this respect with those of the other Universities of India.

* * *

Mr. T. C. Lewis, M.A., Inspector of Schools, Lahore Circle, in a paper recently read at the first meeting of the newly-organized Association of Teachers of the Lahore District, instances as a practical illustration of the advantages to be derived by teachers from "comparing notes" at their periodical meetings, the teaching of Geography, "a subject," he adds paradoxically but very truly, "so hard because it is so easy." One defect he points out in the teaching of Geography is that boys are not required to draw maps themselves. This defect has been long ago remedied in Madras, where Mr. Adam's outline maps are so well-known and so exten-

sively used. This Journal has gone a step further. While it endeavours to render the study of Geography more attractive as may be seen on another page of our present issue, where we publish the result of our recent Map-drawing competition, it prohibits the use of prepared projections, everything on the map being necessarily the competitor's own work.

* * *

The Editor is fortunate in having secured for the Journal, in the department of "Geography and Map-drawing," the honorary services of such a distinguished specialist as Mr. A. E. Duchesne, B.A., the new Secretary of the Victoria Technical Institute, Madras. He it is who has acted as Judge in the Map-drawing competition of which we announce the result in the present issue, and who in future will conduct all competitions in this department. The Map prescribed for the next competition is notified on another page.

* * *

With reference to the Symposium begun in our last issue on the question "At what stage should English be introduced into Indian Schools," and treated so ably by men of such wide practical experience in School-work as Mr. A. E. Duchesne, Mr. T. R. Ramanatha Aiyar, and Rao Bahadur S. Appu Sastriyar, we shall be glad to publish in subsequent numbers any contributions that may be received on the same subject from experienced teachers in any part of India. The practical solution of this question adopted last year by the Government of Mysore, together with the reasons for the plan adopted, will be found on another page in our notice of Public Instruction in Mysore, 1891-92. In an early number we hope to begin a new Symposium on "Teaching Universities for India."

* * *

Change of editorship, absence on the hills, and delays in postal transmission, are among the reasons why the Journal is brought out so late this month. Next month also we fear the Journal will unavoidably be later than usual, but after that we hope it will always appear, at the latest, early in the second week of every month.

THE COLVIN TALUKDARS' SCHOOL, LUCKNOW.

If the Punjab has its "Eton" in the Aitchison Chiefs' College, the North-Western Provinces now have what is very likely to become another "Eton" in the Colvin Talukdars' School, Lucknow. This admirable and much needed Institution was opened with great pomp on 8th March 1892, and, if carefully fostered, may in time rival the glories of the Chiefs' College. It is called after Sir Auckland Colvin, who established it in the capital of Oudh. We are indebted for the following information concerning it to an article to the *Punjab Magazine*. "Sir Auckland Colvin encouraged the Talukdars to open a school for the education of their children, and the foundation-stone of what is now a magnificent building was laid on 11th March 1890, in the heart of the sandy tract of land which lies on the other side of the river, opposite the Badshahi Bagh. A lump sum of nearly Rs 1,40,000 was subscribed by the Talukdars (the Hon'ble Raja of Bhinga's share being the largest) for building purposes, and a monthly grant of nearly Rs. 1,300 for the maintenance of the school. The buildings, however, grew up like the prophet's gourd in the heart of the sandy country, and thus in a short space of time the desolate and sandy waste was converted into a handsome boarding school." The staff consists of the Principal, Mr. H. Siddons, a Head-master, two Assistants, a Sanskrit and a Persian teacher. It has also a drill instructor, a riding master, two *Maulvis* and a *Pandit*. The routine of the day is thus described—"All the students rise early in the morning, and those who have their ponies with them here have their riding school three times a week under the supervision of a native *dafadar*, while the little boys, if they like, take a stroll with one of the resident teachers. All of them must be back at 9 A.M., by which time they take their breakfast and are ready for school, which begins at 10. After the school closes at 3 P.M., they are out again at about 4 to play tennis, football, cricket, &c., whatever they like. These games go on till sunset, when the Muhammadan boys have their evening prayers with their *Maulvis*, and the Hindus their *Sandhya* with the *Pandit*. From 7 to 8 P.M. they assemble in the common room for study, and on holidays for innocent indoor amusements, such as draughts, dominoes, chess, &c., the game of cards being prohibited by the Principal, who does not like boys to play anything that may lead to gambling. Thus ends the routine of their daily work."

The aims and objects of the new school were clearly expressed in Sir Auckland Colvin's speech at the opening ceremony. This speech was a wonderful mixture of reproof and encouragement. He reminded

the Talukdars how influential was the position they enjoyed, and how much trust the British Government was ready to place in them, and hence they must in no way allow themselves to be overridden by their rivals, the common people, in respect of educational matters. His Honor further insisted on their sons and relations remaining in the school premises both day and night, for which purpose a handsome and spacious boarding-house was to be provided. Children of rich men and noblemen in India, especially in the Upper Provinces, generally spend their youth in doing nothing, and, what is worse, contract bad habits of smoking, abusing, cursing, &c., in the company of low servants with whom they pass a good deal of their time. They are ready to do any evil action on the score of being rich and noble. Their parents, with overflowing love and affection for their young ones, connive at their juvenile faults, which they hope will be uprooted in manhood; but alas! these faults, as they may be lightly termed, take firm and deep root in their nature when they are young, and have a tendency to grow stronger and stronger with lapse of time. To prevent any growth of such evil habits of youth would necessitate separation from home, and for this purpose there could not be found any place better than the Colvin School, where the young Talukdars will learn gentlemanly manners even when they are young, and not only will they be polite towards others, but by living together, under the same roof, as it were, they will all be friends when they grow up, and the circle of their friends and acquaintances will be considerably increased. They will also learn lessons of union, and will be fully alive to the advantages of living amicably even with those whom they would otherwise have considered their rivals and enemies. We trust the Talukdars of the N. W. Provinces and Oudh are keenly alive to the blessing conferred upon them by the institution of this new School, and that they will exert their utmost endeavours to ensure its success.

PUBLIC INSTRUCTION MYSORE, 1891-92.

The facts and figures laid before us by Mr. H. J. Bhabha, Education Secretary to the Government of Mysore, in his Report on Public Instruction in Mysore, 1891-1892, testify to the rapid spread of education in that Province. He informs us that on the 31st March 1892 the number of Public Institutions was 1,663 against 1,596 on the 31st March 1891, and the number of scholars was 76,288 against 72,970. The number of private institutions was returned on the 31st March 1892 to be 2,060 against 1,814 in the previous year, and the number of scholars in private

institutions was returned to be 25,011 against 23,457. The total number of institutions both public and private increased from 8,410 to 3,723 and the total number of scholars from 96,427 to 101,329. Of the total number of scholars, 89,967 were male and 11,362 were female scholars. If the figures given by the Census are adopted, the percentages of male and female scholars to the total male and female population of school-going age for the Mysore State, exclusive of the Civil and Military Station of Bangalore, will be 16.21 and 2.09 per cent. respectively, and the percentage of all pupils both male and female to the total population of school-going age will be 9.23. Among the more important educational measures adopted during the year are the following. (1) The English course up to the standard of the Matriculation Examination will extend over seven years after a pupil has gone through a vernacular course of four years, and will be divided into a Middle School course of four years and a High School course of three years. The reason for making these changes is generally to secure greater attention being paid to the vernacular of the pupil and to give him a good grounding in the vernacular before he proceeds to the study of a foreign language. It is hoped that by making primary education entirely vernacular the pupils' progress in the study of English when he reaches the middle stage will be sounder and more rapid than at present, while the spectacle of a highly educated man who is unable to express his ideas in his own vernacular will become rarer than at present and the ultimate effect on the development of vernacular literature for the instruction and elevation of the masses will be great. (2) For the better maintenance of discipline in schools, Inter-School Rules were discussed and passed at a conference of Headmasters. They have been brought into force since January 1892. (3) The inspecting staff has been re-organized, and the beneficial effects are already apparent. From the 1st September 1891, the cost of inspection which used to be borne partly by the State Funds and partly by the Local Funds has been borne wholly by the State Funds. (3) The sketch of a scheme of technical education and of instruction preparatory to technical education that can be combined with the course of general studies adopted in ordinary schools has been prepared. An Industrial School has been opened at Mysore from the 1st January 1892 in which drawing and the industries of carpentry, blacksmiths' work, and rattan work, are taught. (4) The Maharani's Girls' School which had been under private management for nearly ten years was taken over by Government on the 1st April 1891, and placed under the general supervision of a Committee. At the same time, to secure the sympathy, confidence and support of the people in the management of Government Girls' Schools, they were all placed under the supervision of

Local Committees. (5) A training class for mistresses was opened in the Maharani's Girls' School. (6) A standing Text-Book Committee was appointed in May 1892, chiefly to lay down the lines on which new text-books should be written and to arrange for their preparation. (7) An Educational Library and Museum was formed during the year for the purpose of making collections of standard works relating to the theory and practice and the history of education, of the latest English school books on every subject, of the Vernacular text-books published in the different parts of India, and of the newest kinds of school furniture, maps, charts and educational appliances. The museum of furniture, maps, charts, &c., has been located in the Victoria Jubilee Institute of Mysore, and the collections of books form at present a part of the office library of the Education Secretary. (8) An Oriental Library has been established at Mysore for the purpose of making a collection of all published standard works of Sanskrit literature and of Sanskrit and Kannada manuscripts, especially those that can be discovered by search in the Province. (9) The school fees of Muhammadans under instruction in Government schools have been reduced to half the ordinary rates. (10) An additional class called the IV Form has been opened in all the High Schools, and the staffs of the High Schools have been strengthened. There is now no Government High School which has not at least three graduate teachers. (11) The Munshis and Pandits employed in High Schools and Colleges have been graded and placed in classes like the Assistant Masters regular increments of pay being provided for them in each class.

Bangalore, as in former years, shows the largest proportion of pupils to population. It is beaten by only three districts in the Madras Presidency, namely, Madras, Nilgiris, and Tinnevely, which in 1890-91 showed the proportions of 1 in 13, 34, and 36 respectively. While 83 per cent. of Brahmin boys and 18 per cent. of Brahmin girls are at school, only 12 per cent. of boys and 1 per cent. of girls belonging to other Hindu castes are under instruction. The total number of pupils learning English has increased by 749, and the number of girls learning English has increased by 32. The number of pupils learning Sanskrit has decreased by 404. The number of pupils learning a vernacular has increased by 2,668. The number of Girls' schools rose from 97 to 105, and the number of girls attending there from 6,848 to 7,523. The expenditure from the State Funds on education was Rs. 3,12,741 in the first 12 months of 1891-92 against Rs. 2,71,460 spent in 1890-91. Thus the permanent increase of expenditure amounted to Rs. 41,281. The Central College, Bangalore, the only First Grade College in Mysore, passed 16 candidates out of 34 sent up in the Language Branch, and 6 out of 13 sent up for the Optional

Branches, of the B.A. Degree Examination of the University of Madras. At the F.A. Examination the Central College passed 25 out of 64 examined; while of the two Second Grade Colleges in Mysore, the Maharajah's College passed 14 out of 35 examined, and the Shimoga College, 6 out of 13 examined. An annual scholarship of £120 together with travelling and other allowances was sanctioned for Mr. S. V. Ramaswami Aiyangar, M.B., C.M., to enable him to study special branches of medicine and surgery in the principal Colleges and Hospitals of Europe. The Report is very encouraging, and reflects great credit on Mr. Bhabha for his energetic management, and judicious reforms.

THE TEACHERS' ASSOCIATION, GUNTUR.

We gather from the Report of the President of the Teachers' Association, Guntur, Madras, read at the second anniversary meeting held there on the 22nd of last April, that the first meeting, attended by 23 teachers, was held in October 1891, and that it was then resolved to start a Teachers' Association for improving the status of teachers in Primary Schools, and of Primary Education generally. The first anniversary was held in September 1892. Why the second anniversary should have been held in April 1893, only seven months after the first, and fully half a year before its time, is not obvious. The institution of the Association is largely due to the influence of Mr. Nagoji Ran, Inspector of Schools. The Report is very satisfactory. During the year the number doubled. Model lessons were given by the President, and criticism lessons by the members. A course of lectures on subjects suited to elementary schools was delivered by Mr. M. V. Somayazi, an Assistant in the Sanskrit High School. Small subscriptions are now levied for the purchase of Educational Journals. Through the efforts of the Association, many schools in the town have begun to bring up Optional subjects for the lower standards.

In the address delivered on the occasion by Mr. A. C. Pranatarthi-hara Aiyar, B.A., Assistant Inspector of Schools, "On the Short-livedness of Indian Associations," the lecturer remarked that the Guntur Association was founded and kept up by voluntary efforts, and was not therefore exposed to the fate of so many similar associations which collapsed as soon as the official founder was transferred elsewhere. Its guiding spirit is Mr. A. M. Sundara Siva, B.A., the President. His sympathetic action in associating with elementary teachers, a thing rarely done by a graduate, deserves commendation. In recommending the use of conciliatory measures, the lecturer pointed out that it was the interest of

the indigenous school-master to keep the people firm in their prejudice against Western modes of education. Teachers should not assume a hostile attitude to these men of the old régime, but be friendly with them, and offer them hopes of eking out an income by seeking Government grants, and help them to shape their instruction to the requirements of the department. There are some good points in the old system. An indigenous school pupil is ahead of the Results School boy in ready reckoning and in practical usefulness to the villagers. Highly educated Hindus are ignorant of the names of the years of their own cycle, of those of the constellations, and similar things, but this kind of knowledge, so necessary in a village, is, and should be, taught in the village school. People who do not send their children to school are three times as many, in the Guntur district as those that do. This is due in some instances to the impression that learning is unnecessary for them, but mainly to the division of labour amongst all the members of a family, necessitated by the struggle for life. The village scribe reads and ciphers for the Reddy farmer, and the latter is content. This unwholesome contentment is the effect of the division of trades ordained in the *Smritis*, and lingers most among classes that have been least affected by the altered times and circumstances. Whatever system of instruction teachers adopt, they should see that (1) they have a clear knowledge of what they teach, (2) that they enter into the minds and feelings of their pupils, and (3) that they never lose patience. These are three essential qualifications in the teacher, and if he wants any of these he cannot succeed. Finally teachers should have the primary objects of education always in view, viz., (1) that the intelligence is drawn out, (2) that the moral instincts are improved, and (3) that the physical susceptibilities are developed. The indigenous system attempts none of these directly, but develops the retentive faculty at the expense of the rest.

KRATES OF MALLOS AND COLUMBUS.

By A. GUDEMAN.

No biographer, no lecturer on Columbus, fails to enumerate the so-called prophecies regarding the existence of a Western Continent from Plato's Atlantis down to Seneca, Dante, Roger Bacon and the Imago Mundi. Taken by themselves these vague imaginings are certainly extremely interesting; brought in connexion with the first voyage of Columbus, however, they are singularly irrelevant, for, if the discoverer, as we are constantly informed, had a knowledge of these predictions, one would

suppose that the trifling obstacle of an intervening continent might effectually have deterred even a more intrepid navigator from attempting to reach India by sailing westward.

Under these circumstances, it may be worth while to recall an apparently forgotten fact, that 1500 years before Columbus was born, this idea of reaching India by crossing the Western Ocean had crystallized into a concrete reality in the mind of one of the greatest philologists of antiquity. For, according to Strabo (I., ch. 31), Krates of Mallos in his commentary to the *Odyssey* makes Menelaus, to him as historical a personality as Columbus is to us, reach India by sailing from Gadeira, not so far from Mallos, across the Western Sea. Now Strabo was translated into Latin by Guarino and printed at Rome in 1470, being thus one of the earliest of incunabula; it is, therefore, not intrinsically impossible that Toscanelli, whose famous letter appeared some years later, or even Columbus, may have noticed this very passage, for Strabo's geography was one of the most widely read books in the Middle Ages, and could not have been unknown to the great geographers and physicists of the day.—*Johns Hopkins University Circulars*, No. 102.

ON TEACHING ENGLISH.

By PROF. BRAINERD KELLOGG in *The School Review*.

English is a study that the scholar is all the while pursuing—when he reads, listens, speaks; in communion with writers through their works or with speakers through the voice, addressed or addressing, he is or may be studying English. Besides, it is on all sides confessed that excellence in English is, in and for itself, supremely desirable. It is desirable as an accomplishment. The ability to express ourselves easily and gracefully in a style appropriate to the matter in hand, pat to all its changes, varying as these vary, is an acquisition to be coveted. One's English is already taken as the test and measure of his culture—he is known by the English he keeps. To mistake his words (even to mispronounce them or to speak them indistinctly), to huddle them as a mob into sentences, to trample on plain rules of grammar, to disregard the idioms of the language—these things, all or severally, disclose the speaker's intellectual standing. One's English betrays his breeding, tells what society he frequents, and determines what doors are to open to him or be closed against him. The attaining of good English is a discipline, too, without superior, must I not say, without equal? What subtle distinction between words and what care in placing them are demanded to create a verbal body that shall fitly incarnate the thought within,

and be its apt and adequate expression! What growth of judgment and of taste this constant search after a fit body to fit head develops! What added power of lucid and correct thinking a struggle for luminous and accurate expression gives! For not more certainly does clear thinking beget clear expression than does clear expression demand clear thinking as a condition precedent. And what a troop of useful, everyday virtues this ceaseless striving to say the fitting thing fittingly nourishes—accuracy, truthfulness, painstaking, thoroughness, patience, justice!

If then a generous, and much more a masterful, command of English is so desirable, why is it so rare a possession? Is there any reason that accounts for this? A hearty appreciation of good English, an eager desire and an imperative demand for it—and the supply of it so scanty! What are the causes that defeat our reasonable expectations in this matter and turn us away disappointed and humiliated? And in particular, why do our schools do so poorly the work in English expected of them? We have to deal largely with those who are not merely ignorant of good English but also have already acquired what one at times is sorely tempted to call incorrigibly bad English. The twig is bent, and the future tree all but hopelessly inclined, when the pupil first comes into our hands. Before we can sow and harrow in the seed of good English, we must dig out the stumps of ugly habits that preoccupy the ground. Good habits of speech would grow there, and will, but only after the evil ones have been eradicated. And remember that, in starting under conditions so adverse, this study is almost unique. A pupil beginning arithmetic, geography, algebra, etc., has no misconceptions to be removed before just conceptions can take root. Respecting these studies, the soil of his mind is virgin—untilled it is true, but with no obstructing growths to be destroyed before it can be tilled. The teacher can thrust in his spade at the start and sow his seed at once.

I do not mean to say that, in their English, boys and girls have all fallen into ways extremely bad. Some come from families in which good English is spoken—few from families where the English is perfect. And what parental care can completely shield the child from the hurtful influences of the street? Slang, misuses of words, and vicious verbal collocations, constructions that kick the traces of grammar, and sentences with clauses misjoined and disjointed, abound in the speech of some children more than in that of others, but are found with painful frequency in the speech of all.

Will my fellow-teachers forgive me, if—making against them no charge that I do not make against myself—I say that another peculiar

difficulty in our way is, that we are incapacitated for teaching English superlatively well by our own ignorance of English? I do not here refer to our lack of special training for the work—our not having thoroughly learned what there was to do, and our failure to equip ourselves adequately to do it. We are not to suppose, because we have corrected bales of compositions, taught grammar and rhetoric, and even written on them, that necessarily our English is above reproach. The widest reading of good authors and the greatest familiarity with their felicities are no guarantee that we speak always with correctness. Who of us has not, when occasionally he has seen himself in the mirror of someone else's better English, been startled at some instance of his own ignorance?

GIRLS IN THE GYMNASIUM.

BY LAURA BROWNELL COLLIER,

(*Journal of Education New England.*)

Since the doors of Berlin University swung wide to an American girl, her German sisters have dreamed of entering in, and now the report comes to us from across the seas that the first Girls' Gymnasium, as it is called in Germany, or Fitting School for the University, was opened at Easter in Weimar. No more inspiring spot could have been chosen. The shades of Goethe and Schiller, of Herder and Wieland, of Lessing and Niebuhr, seem still to walk those streets. The charming park planned by Goethe, with its stone stairways and grottoes, its arbours and rustic bridges, does not so much tempt to idle days as furnish seclusion for earnest thought. The quiet of the library, with its flavour of antiquity, though it is not old, may well be invaded by curious girl students, and the thrilling history of decisive deeds in church and state be studied in the valley where they have been wrought into the world's history.

But the present outlook brings back vividly the half-amused, half-suspicious, wholly surprised view with which we were regarded only fifteen years ago because of our desire to know something of the German methods of teaching the classics in that same Weimar. The letters of introduction and the preliminary calls necessary made it seem quite different from the ordinary *hospitieren*, or visiting of the lower grades of schools, where one is welcomed with little formality but genuine courtesy. And courtesy was not lacking on the part of the learned Doctor, head of the gymnasium, who had to decide in regard to our preposterous request.

After some close questioning as to our "intention" and what Greek and Latin girls in American colleges read, he extended a cordial invitation to attend two of his recitations a week and a half from the day, adding, it "would be necessary to make some little especial preparations". Even the grave dignity with which this was announced could not make such a suggestion other than very funny. An ordinary, uncritical visitor in one of our boys' high schools would no more disturb the usual routine than would the buzzing of a fly.

On the appointed morning, while waiting with the Herr Director for the close of the nine o'clock recess, for there had been one set of recitations earlier, the most novel sight was that of the serious, scholarly-looking professors munching the crispy, crusty *semmels*, whose only wrapping was their own shining brown coats as they were drawn from convenient pockets. This second breakfast was the forerunner of several frugal lunches snatched at the sauntering times between classes.

The German gymnasium course covers about the same ground as that traversed by American students at the end of their sophomore year. The particular recitation in Horace at which we were graciously allowed to be present was preceded by an incisive little lecture touching on the beauty of the metaphors in the Satire read, such a talk as makes Latin less a dead language and the reading of Horace not a mere matter of construction and scanning.

The Greek lesson was from "Antigone," and included the passage in which Ismene reminds her sister to bethink herself that she is a woman and it is not fitting for her to try and cope with men. Was it mere coincidence that the class had reached this passage, or was it a result of the "little preparation" referred to?

German as well as American girls are not eager for opportunities to "cope with men," but they do care for a chance to train their powers in lines that are most congenial. If a girl prefers the classics or mathematics to the diluted science and the modern language to which the weaker fibre of her mind has been supposed to be peculiarly fitted, we are glad she is to have broader and better opportunities for cultivating what some may still consider her abnormal tastes. She cannot but have her love for poetry, and for nature as interpreted by men of genius, quickened and deepened in such an environment as Weimar affords.

No amount or kind of training can make a success of every upright, attractive, and educated person who wishes to teach school.

MADRAS ATHLETIC ASSOCIATION

(late "Physical Training and Field Games Association.")

INSTITUTED 1881.

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RULES OF THE ASSOCIATION.

(General Code, as finally revised at the Annual Meeting of 1893.)

1. Name—This Society shall be called "The Madras Athletic Association."

2. Object—The object of the Association shall be to promote Gymnastic and other Physical Training and a love for Field Games among the youth of the Madras Presidency by:—

- Holding public competitions in Gymnastics and Field Games, and granting prizes to successful competitors.
- Superintending the supply of gymnastic apparatus and material for games.

3. Members—The Association shall consist of an unlimited number of Members.

Subscribers of the sum of not less than Rupees Five annually shall be Members of the Association. A donation of Rs. 100 shall constitute the donor a Life Member of the Association.

4. Patrons—Such Noblemen and Gentlemen as the Association may from time to time determine shall be invited to become Patrons.

5. The Managing Committee—The Managing Committee shall consist of a President, two Vice-Presidents, an Honorary Secretary and Treasurer, and fifteen Members, to be elected annually at a General Meeting of the Association. Five shall form a quorum.

Vacancies occurring in the Managing Committee during the year shall be filled up by the Committee.

6. Meetings—A General Meeting of the Association shall be held annually, and an extraordinary General Meeting may be held at any time if convened by the President on the requisition of nine members of the Association. At least three weeks' public notice of all General Meetings shall be given.

7. Functions—(a) The General Meeting of the Association shall receive the Annual Report and Statement of Accounts presented by the Managing Committee; elect the President, the Vice-Presidents, the Honorary Secretary and Treasurer, and the Members of the Managing Committee, for the ensuing year; and shall transact any business of which not less than seven days' notice shall have been given.

(b) The Managing Committee shall examine the accounts of the Association, pass bills, regulate expenditure, and exercise a general control over the business of the Association.

(c) The accounts shall be audited annually by an Auditor appointed by the Managing Committee.

8. Bye-Laws—The Managing Committee shall have power to make or alter any Bye-Laws from time to time for carrying out the objects of the Association, but such Bye-Laws shall not be repugnant to the general rules, and shall be printed in the annual report.

9. Alteration of Rules—No addition to, or alteration in, these Rules shall be made except at a General Meeting of the Association.

Rules for the Association's Annual Competitions.

I.—GENERAL.

I. The competitions shall be open to all Colleges and High Schools in the Presidency, and also to those of Travancore, Maisur, Haidarabad, Cochin, and other Native States.

II. There shall be two classes of competitions, a senior and a junior. In cricket and tennis competitions, the junior shall be limited to schools and school departments.

III. All competitors, in competitions not specially exempted, must be *bond fide* students of a College; or must have been *bond fide* pupils of a School for the two terms immediately preceding the competition, and no one will be held to be a *bond fide* pupil of a School who has not attended the same School on at least two-thirds of the working days during each term. Instructors, and persons holding certificates in Gymnastics from the Association or from Government, or undergoing training for such certificates, shall be excluded from all ordinary contests.

NOTE.—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 on the rolls of any Institution during the interval.

IV. No pupil above 16 years of age in the case of Gymnastics and Athletics, or above 17 years of age in the case of Tennis and Cricket, on the last day on which the application to compete should reach the Honorary Secretary, shall be allowed to appear for the junior competitions; and no student above 23 years of age on the last day on which applications to compete should reach the Honorary Secretary shall be allowed to appear for the senior competitions.

V. All entries must be made through the Head, or other authorized representative, of the Institution in which the competitor has studied, who shall certify that the conditions of age and attendance have been complied with.

VI. The entrance fees shall be as follows:—

1. For each competitor in English Gymnastics and Athletics, 2 annas.
2. For each competitor in Native Gymnastics, 2 annas.
3. For each member of a Cricket Team, 8 annas.
4. For each pair in Lawn Tennis Doubles, 5 rupees.
5. For each competitor in Lawn Tennis Singles, 5 rupees.

VII. All competitions shall be conducted under the rules of the M. C. C., the A. E. L. T. C., and the A. A. A.

VIII. All competitions shall be held in Madras at such times as the Managing Committee shall determine.

IX. The Association will provide wickets, nets, and balls; but no other articles.

X. 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.

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

XII. The name of any competitor acting in a disorderly manner shall be forthwith erased from the lists by the judges.

II.—THE TROPHY MATCHES.

(i) *The Brandt-Hutchins and Sri Goday Vari Cricket Trophies.*

(a) No competitor shall be permitted to play for both the trophies in the same season.

(b) Competitors shall wear trousers in all the trophy matches.

(c) 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.

(d) The Brandt-Hutchins trophy shall be awarded to the winning team in the competition of Seniors, and the Sri Goday Vari trophy to that in the competition of Juniors.

(ii) *The Travancore and Sir Ramaswami-Ranganadam Lawn Tennis Trophies.*

(a) & (b) As for the cricket trophies.

(c) These trophies shall be given for *Doubles*.

(d) The Travancore Trophy shall be awarded to the winning Institution in the competition of Seniors, and the Sir Ramaswami-Ranganadam trophy to that in the competition of Juniors.

(e) No College or High School shall send in more than one pair of players for each competition.

Only one competitor shall be allowed to represent each College or School in the single Tennis matches.

III.—GYMNASTICS AND ATHLETICS.

(a) The following Champion Prizes are 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 bars, trapeze, rings, and horse.

THE SIR RAMASWAMI CUP shall be given to the candidate who makes the highest number of marks in the following native gymnastic exercises:—*Thandál*, *Raski*, *Kusti*, (wrestling), *Karela*, *Jódi* (dumb-bells), *Bána* (single stick), *Patta* (sword play). There will be no division into Juniors and Seniors in this competition.

(b) No candidate shall be eligible for a Champion Cup who has won it twice in succession or three times in all.

SPORT.

Reuter informs us that Ranjit Singh, an Indian student, who is playing in the Cambridge eleven this season, is scoring well. In the match between Cambridge University and the Marylebone Cricket Club, the latter were beaten by ten wickets. Mr. Ranjit Singh, on the Cambridge side, scored 55.

An Indian Cricket Club has been instituted in London, of which Mr. H. S. Puri is *President*, Mr. Parma Nand, *Captain*, Mr. Iradatullah, *Vice-Captain*, and Mr. Prabh Dial, *Middle Temple, Hon. Secretary and Treasurer*, from whom particulars can be obtained.—*Ind. Mag. and Review*.

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CORRESPONDENCE.

To the Editor of "The Indian Journal of Education."

SIR,—In continuation of my paper which appeared in the last issue of the *Indian Journal of Education*, I beg that you will kindly permit me to explain the causes of the irregularities of the lengths of the several months, as also the bearing of astrology on the order of the names in which the days of the week are known to us.

1. When Julius Cæsar reformed the calendar, he ordered that the months from March* should consist alternately of 31 days and 30 days, the last month February containing 30 days in leap-years and 29 days in ordinary years. Further, in honour of himself who introduced the reform, he changed *Quintilis* (=the 5th month), the name of the month following June, into July. The months would thus have consisted of 31 days and 30 days alternately from March, with the exception of February in ordinary years, were it not for Augustus Cæsar, who not to be behind his great-uncle Julius Cæsar in honour, had the month of *Sextilis* (=the 6th month, or the month before *September*) called after himself, and 'from vanity broke up the regularity of Cæsar's arrange-

* March was originally the first month of the year in the Roman Calendar, as is evident from the names *September*, *October*, &c., which mean respectively the seventh (month), the eighth (month), &c.

ment by taking a day from February to add to his own month that it might not be shorter than July, the month of Julius Cæsar. He further arranged that October and December should consist of 31 days instead of September and October as laid down by Julius Cæsar, in order that there might not be three consecutive months of 31 days each (July, August, and September). In this arrangement the year has stood since the time of Augustus Cæsar.

2. The arrangement of the heavenly bodies in the order of their distance is in the Ptolemaic system—as also in Hindu astronomy—Saturn, Jupiter, Mars, the Sun, Venus, Mercury, and the Moon—an arrangement which corresponds with the modern system when the Earth is substituted for the Sun, and the Moon is removed from the list, not taking rank as a primary planet. In astrology these planets are supposed to preside in this order over the twenty-four hours of the day, and the day is supposed to be sacred to the planet ruling over the first hour. Thus, if the first hour of a day be presided over by Saturn, the day will be Saturn's day or Saturday. The second hour will be that of Jupiter, the third that of Mars, and so on; and the twenty-fifth hour or the first hour of the next day will be that of the sun. Hence the day that follows Saturday is known as Sunday. Similarly the 49th hour or the first hour of the third day from Saturday will fall to the Moon, and is therefore called the Moon's day or Monday, and so on. Thus the days in order from Saturday are believed by astrologers to be sacred respectively to the Sun, the Moon, Mars, Mercury, Jupiter and Venus. The Sanscrit and vernacular names in India are the literal equivalents of these names, like those of France, Italy and Spain. But among the Teutons, the classical gods have given way in some cases to the deities of northern paganism as the following lines clearly show :—

The Sun still rules the week's initial day;
The Moon over Monday yet retains the sway;
But Tuesday which to Mars was whilom given
Is Tuesday's subject in the northern heaven.
And Woden hath the charge of Wednesday
Which did belong of old to Mercury,
And Jove himself surrenders his own day
To Thor, a barbarous god of Saxon clay.
Friday, who under Venus once did wield
Love's balmy spells, must now to Freya yield.
But Saturn still holds fast his day, not mild.

3. In conclusion, I may observe that the following simple rule for remembering the relative distances of the planets from the Sun is not as generally known as it ought to be.

"Write 4 nine times. Under the second 4 write 3 and multiply by 2 throughout. Then add." Thus—

4	4	4	4	4	4	4	4	4	4
		6	12	24	48	96	192	384	
4	3	10	16	28	52	100	196	388	
Mercury.	Venus	The Earth	Mars	Asteroids	Jupiter	Saturn	Uranus	Neptune	

That these figures are not very wide of the mark except in the case of Neptune, will be clear, when it is remembered that the relative distances as given in works on astronomy are (roughly) 3.9, 7.2, 10, 15.2, 27.4, 95.4, 192 and 300.

4. The order of the planets may be easily known from my mnemonic 'Mark Vemajsun', in which *mark* indicates Mercury, and the letters of *Vemajsun* are the first letters of the other planets in order.

S. RADHAKRISHNA AIYAR.

[P. L. N. N.—Declined, as strictures not refuted. The only procedure possible has been already pointed out.—Ed.]

OUR PRIZE COMPETITIONS.

ENGLISH.

(Conducted by the Editor.)

In our last issue we published the prize-winning *poetical* paraphrase of Wordsworth's "She was a Phantom of delight." The best *prose* paraphrase received is given below, and is by Muhammad Bazlullah, B.A. Class, Rajahmundry College :—

"When I first met her, she flashed upon my view like a delightful vision, a beautiful apparition, sent to charm the eye for one brief moment. Her sparkling eyes shone like stars in the twilight sky, and her dusky tresses resembled the gathering shades of evening; but all other things about her were as the month of May, and cheerful as the morn. Hers was a nimble form, a sprightly and smiling face calculated to possess our thoughts, and to dazzle and captivate us.

When I became better acquainted with her, I found her to be at once a spirit and a woman! Her bearing in the family circle was gentle and easy, she moved with the freedom of innocent virtue. Her face was the mirror of her character, reflecting the pleasant antecedents of her life and giving promise of an equally pleasant future. She was not too ethereal to be above the common experiences of mankind, but had a "touch of earth," and was susceptible of the various emotions and innocent arts of human nature.

And now on calm and sedate reflection, I comprehend the very essence of her nature, and find that thought was the very element in which she lived. Apilgrim she was from this world to the world to come. Resolute and firm but never wilful, patient, farseeing, strongminded, and full of tact, she was a perfect type of woman, richly endowed with all noble qualities, to prove a counsellor in need, a comforter in sorrow, and a queen in the family; and withal, a spirit, beaming forth rays of celestial light."

The result of the English Paraphrase of Tennyson's "Crossing the Bar" will be announced in our next issue. The small number of competitors is probably owing to the difficulty of the piece selected. We are glad to notice that only one paper had to be rejected this time for breaking the conditions.

MAP-DRAWING.

(Conducted by Mr. A. E. Duchesne, B.A.)

Eight maps were sent in, four from Madras, two from Patna, and two from Kumbakonam. By far the best production was that of C. K. Kuppaswami, of the Madras Christian College, who obtained 45 marks out of a possible 50. To him accordingly the prize is adjudged. His map is a striking example of what can, and should, be done by the students of this country.

Deserving of honourable mention.

1. C. Venkata Subbayya, Kumbakonam College.
2. Syed Akton Hussain, Patna City School.
3. P. Rutna Mudaliyar, Mailapur.

A youthful competitor, W. S. Zaccchens, aged thirteen, sent in a promising map. With a little more practice he is likely to do well.

The competition this month is for *A Map of the British Empire shewing only the Physical features and chief towns*. Prize and conditions as already specified in the Journals for March (p. 161) and April (pp. 236-7). The time for sending in Maps is specially extended to 20th July. This is the last day on which any Map will be received for the competition.

Character cannot be talked into or taught into a child; it must be lived into him.

* * *

In teaching the different branches of study, teachers should recognize that the greatest success lies in teaching their pupils how successfully to use books.

MATHEMATICAL.

(Conducted by Rai Bahadur P. Ranganada Mudaliyar, M.A.)

[All communications for this section should have the word *Mathematics* on the cover, and should reach the Editor before the last day of the month or they will not be attended to.]

Solutions to the questions given in our April number have been received from M. A. Tirunarayana Chari, T. S. Tillainayagam, P. Virayya and G. S. Venkataraman of the Presidency College; and from G. Rama Aiyangar of the S. P. G. College, Trichinopoly.

Question 2. (Proposed by P. R.)—DEF, D'E'F' are in-triangles of ABC, (D, D' on BC; E, E' on CA; F, F' on AB) which have their sides parallel to the bisectors of the angles of ABC. Find the areas of the triangles, and show that DDE'E'FF' is an equilateral hexagon having each side equal to $abc/2(ab)$.

Solution (by V. Ramaswami Aiyar).

We shall first show that a hexagon having all the sides equal and the opposite sides parallel, can be inscribed in the triangle ABC.

Analysis.—Let DDE'E'FF' be such a hexagon. Put

$$E'F = \lambda a$$

$$F'D = \mu b$$

$$D'C = \nu c$$

Since these three sides are equal,

$$\lambda a = \mu b = \nu c \dots (1)$$

Again $BD = \mu a$ for $BD : DF' = BC : CA$.

Similarly $D'C = \nu a$. Hence $DD' = BC - BD - D'C = a(1 - \mu - \nu)$.

Expressing that $DD' = EF$ we get $a(1 - \mu - \nu) = \lambda a$; or

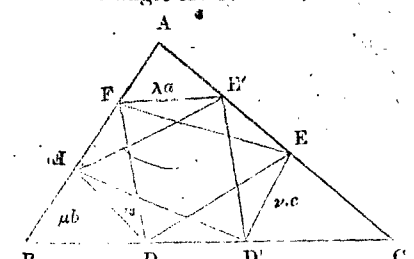
$$\lambda + \mu + \nu = 1 \dots (2)$$

We shall evidently obtain the same equation from expressing that $EE' = F'D$ and that $FF' = D'E$.

From equations (1) and (2) we find $\lambda = \frac{\kappa}{a}$, $\mu = \frac{\kappa}{b}$, $\nu = \frac{\kappa}{c}$ where κ = the length of each side of the hexagon $= abc/(bc+ca+ab)$; and thus we see that such a hexagon can be inscribed in the triangle.

Consider now the triangle DEF. The side DE is the base of the isosceles triangle DD'E, and is therefore parallel to the external bisector of the angle DDE; that is, to the bisector of the angle ED'C; and therefore to the bisector of the angle ABC. Similarly EF is parallel to the bisector of the angle C, and FD to the bisector of the angle A.

In the same manner it may be shown that the sides of the triangle D'E'F' are parallel to the bisectors of the angles of the triangle ABC.



Now since it is possible to inscribe in ABC *but one triangle* having its sides respectively parallel to three given straight lines, we see conversely, that if DEF, D'E'F' are in-triangles having their sides parallel to the bisectors of ABC as in the figure, then DD'EE'FF' is a hexagon having *each* side equal to $\frac{abc}{\Sigma(ab)}$ and the opposite sides parallel.*

We further see that the triangles DEF, D'E'F' thus inscribed are equal in all respects. To find the area of DEF we have $\Delta DEF = \Delta ABC - \Delta AEF - \Delta BFD - \Delta CDE$,

$$= S - \lambda(1-\nu)S - \mu(1-\lambda)S - \nu(1-\mu)S, \text{ where } S \text{ denotes the area of the triangle ABC;}$$

$$= (\lambda\mu + \mu\nu + \nu\lambda)S = \frac{abc(a+b+c)}{(ab+ac+bc)^2} S.$$

QUESTIONS FOR SOLUTION.

I. (G. L. Narasimham.)—PP' is a chord of a parabola which cuts the axis in R, and PT is tangent, and PN is a $\perp$ on the axis, and the diameter of the chord cuts the $\perp$ in K. Show that RK is $\parallel$ to the tangent.

II. (A Carpenter.)—Given a rectangular piece of board, 2 ft. 1 in. long and 1 ft. 4 in. broad, show that it can be cut into two parts which can be fitted so as to form a square.

III. Find a short method of reducing to decimals fractions, whose denominator ends in 9; e.g., $\frac{3}{19}$, $\frac{7}{39}$, &c.

IV. If $\lambda_a, \lambda_b, \lambda_c$ be the joins of any point on the in-circle to the angular points of a triangle, find the value of $\Sigma \lambda_a^2$.

V. Describe an equilateral triangle such that one vertex coincides with a given point, and the other two vertices are on a given straight line and a given circle respectively.

VI. Establish the series—

$$(a) \frac{\pi}{2} = 1 + \frac{1}{3} + \frac{1 \cdot 2}{3 \cdot 5} + \frac{1 \cdot 2 \cdot 3}{3 \cdot 5 \cdot 7} + \dots$$

$$(b) \frac{2\pi}{3\sqrt{3}} = 1 + \frac{1}{3} \left(\frac{1}{3}\right) + \frac{1 \cdot 2}{3 \cdot 5} \left(\frac{1}{3}\right)^2 + \frac{1 \cdot 2 \cdot 3}{3 \cdot 5 \cdot 7} \left(\frac{1}{3}\right)^3 + \dots$$

VII. Show that the asymptotes of the curve $4(x^2 + y^2) - 17x^2y^2 - 4x(4y^2 - x^2) + 2(x^2 - 2) = 0$ cut the curve in eight points lying upon an ellipse whose eccentricity is $\frac{\sqrt{3}}{2}$.

VIII. In the curve for which $y^{2m} \left(\frac{dy}{dx}\right)^2 = a^{2m} - y^{2m}$, prove that the normal is m times the radius of curvature.

[G. L. N.—First question illegible.

V. R. A.—Question incomplete.]

That teacher is most successful who appeals with an earnest, whole-some soul to the whole nature of the child.

INDIAN NOTES.

Mr. John Adam, M.A., Principal of Pachaiyappa's College, Madras, has gone home on special leave for fourteen months.

Mr. M. T. Quinn, M.A., Professor of English Language and Literature, Pachaiyappa's College, Madras, has been appointed to act as Principal, *sub pro. tem.*, *vice* Mr. Adam.

Mr. A. E. Duchesne, B.A., Head Master of Chengalroya Naicker's Commercial and Technical High School, Madras, has been appointed Secretary to the Victoria Technical Institute, Madras. *vice* Mr. Adam.

The Trustees of Pachaiyappa's Charities have entrusted to Mr. John Adam, M.A., the selection of his own successor in the Chair of History at Pachaiyappa's College. The new Professor is to be an Honours graduate in History, and is to enter on his duties at the beginning of the Second Term.

The Rev. J. M. Russell, M.A., Professor, Madras Christian College, has proceeded to Europe on furlough.

The eldest son of the Maharajah of Cuch Behar has been placed at the Rajkumar College at Ajmere.

"The Native College," Berhampore, has just been handsomely endowed by the Rajah of Kallikot, and is henceforth to be called "The Kallikot College."

The death is announced at Dharwar of Mr. R. B. Yashwant Moreshwar Kelkar, Rao Bahadur, Oriental Translator to the Bombay Government.

Dr. W. H. Wilson, Professor of Chemistry, Presidency College, Madras, has gone to England for the Midsummer Vacation, but will be back at the beginning of the Second Term.

The Rev. Gilbert Watling, B.A., of Selwyn College, Cambridge, took up his appointment as Warden of Bishop Cotton's School and College, Bangalore, on 1st inst., *vice* Mr. H. A. Williams, M.A., retired.

Dr. Gustav Oppert, Professor of Sanskrit and Comparative Philology, Presidency College, Madras, retired from the service of Government shortly after the end of the financial year, and is at present travelling in Northern India.

Dr. Oppert has retired on a pension of Rs. 5,000 per annum, under the rules applicable to "Specialists" in the Public Service. There was some question as to whether the old or new rules should apply in his case, but the old rules have been held to apply as he entered the service after the age of 25.

Mr. M. Seshagiri Sastriyar, M.A., Second Senior Assistant Professor, Presidency College Madras, has been appointed Professor of Sanskrit and Comparative Philology, and Curator, Government Oriental Manuscripts Library, *sub pro. tem.*, *vice* Dr. Oppert retired, and has been placed in the Fourth Class of the graded service.

Mr. S. Rangayya Chetti, B.A., Assistant Professor, Madras Christian College, has been appointed Government Translator in Telugu, *vice* Dr. Oppert retired.

The honour of representing the Calcutta University in the Bengal Council has fallen to Mr. W. C. Bonnerji, and by electing him the University has done honour to itself. Mr. Bonnerji was elected by a majority of 19 votes.

Miss Christine Subrahmanyam, daughter of Mr. N. Subrahmanyam, Barrister-at-Law, Madras, matriculated at the University of Madras in 1889, and has recently passed in First Class at the Intermediate Examination in Music.

The Syndicate of the Bombay University invite applications for a Government of India Scholarship which has to be filled during the present year by that University. Applications must reach the Registrar not later than Monday, the 19th June.—*Do. Ed. Record.*

Tyaba Begum Bilgrami, daughter of Nawab Imad-ul Mulk Bahadur, Director of Public Instruction, Haidarabad, has passed the Matriculation Examination of the University of Madras, and is said to be the first Muhammadan lady that has ever presented herself for examination at an Indian University.

The Universities of Madras and Calcutta present a very striking contrast in the number of passes granted by their respective Examiners in the literary portions of the late B.A. Degree Examinations. In Calcutta only 20 per cent. of the candidates passed, while the Madras Examiners passed no less than 76 per cent., with 22 in First Class.

The following appointments have been made in the Bombay Educational Department, *vice* Mr. R. G. Oxenham promoted to act as Director of Public Instruction:—Mr. T. B. Kirkham, Barrister-at-law to act in First Grade; Mr. J. T. Hathornthwaite, M.A. on return to duty to act in the Second Grade, and Mr. F. G. Selby, M.A. to act in the Second Grade pending Mr. Hathornthwaite's return.—*The Mahratta.*

The *Mysore Herald* learns that "some of the lovers of education in Mysore are getting a Memorial ready to His Highness the Maharajah, setting forth therein the necessity there is to establish a Law College at Bangalore and raise the local College to a first grade one. The Bangalore people we hope will follow suit, and thus show the Maharajah the need for the Law College."

The death, within a few days of each other, of Mr. Krishnaji L. Nulkar and Mr. Sorabji S. Bengali has deprived the Bombay Presidency of two thorough educationists who were men of the highest character. Both were deeply impressed with the dangers of "departmentalism"—of education becoming a mechanical thing and falling into ruts and grooves. Both advocated and practically promoted the education of girls.—*Bo. Ed. Record.*

The results of the Provincial Civil Service Examinations held in Madras last February are now published. Of the 22 original candidates only 19 appeared before, and only 8 were passed by the Medical Board. Five of these gained the necessary third in English, but only two have gained a third of the marks in the further subjects selected by themselves. The two successful candidates, M. Ravi Varma Rajah and T. Raghavayya, have been appointed additional Deputy Collectors, in the sixth class.

On Wednesday, 24th May, a clerk of the Presidency College, Madras was given the answer papers to the questions put by Mr. John Adam, M.A., at the recent Upper Secondary Examination and directed to post them to Mr. Adam who is at present in England. The clerk, it would appear, drove into Black Town, and thence proceeded to the Evening Bazaar

walking, his carriage following behind with the bundle of answer papers within it, when some one removed the papers and made away with them. The matter was reported to the Police, but up to the present the papers have not been recovered.—*Madras Standard*.

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The rule under which the Cooper's Hill Forest students are allowed to choose their own Province, and which resulted in one Presidency—with an undeserved evil reputation—becoming the refuge of those destitute of choice, has under very recent orders from the India Office been changed. The next batch of students will, accordingly, be distributed, not by themselves, but by the superior authorities who will no doubt compensate the suffering Presidency by sending it some of the picked students of the next two or three years.—*Pioneer*.

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Setupati the Rajah of Ramnad has been active in his charities, and where he has given, he has given munificently. Out of gratitude for the aid so generously bestowed by him, "The Town High School," Madura, has recently been metamorphosed into "The Rajah of Ramnad High School." In reply to an address presented to him on the occasion, the Rajah assured the gentlemen present that he would do all in his power to maintain the school, and to advance education in Madura.

* * *

Setupati the Rajah of Ramnad has lately established in Madura a Printing Press which is turning out very good and neat work. On Thursday, the 18th May, the Rajah visited the Press and announced his intention to make it a large institute for the help of youths who are not able to prosecute their studies for higher examinations, and promised that he would encourage them by monthly stipends. To carry out the work on a better scale he has proposed to bring over to Madura another Press which is now in Ramnad samasthanam.

* * *

Following the Northern Division, some of the District Local Boards of the Central Division have resolved to try the experiment of giving a whole month's vacation to their Primary Schools, and all Schools in the Districts of Satara, Sholapur, and Nasik have accordingly been closed in May. Several other boards have not approved of the innovation. There is a good deal to be said on both sides. Anyhow it is well that the experiment of a May-vacation should be tried in some districts, and the results on attendance and efficiency observed and noted.—*Bu. Ed. Record*.

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At a time when all the Indian Universities are laying greater stress on physical rather than on mental culture, when the students of colleges and schools are required to preserve the freshness and bloom of their youth by manly and vigorous exercises of the field, and not to look like inmates of a hospital, it is very gratifying to see that the Colvin Talukdars' School is trying, and trying very successfully, to co-operate with the common desire, and to produce men who will be as good in literature and science as brave in games and sports of the field.—*The Punjab Magazine*.

* * *

At the recent Annual Commemoration of the La Martinière College and the La Martinière High School, Sir C. Crosthwaite, Lieutenant-Governor of the N. W. Provinces, who presided, spoke of the great need of such institutions at the present time, when "Europeans, by circumstances over which we have none of us any control, are compelled to look to the schools in India for the means of educating their children." Last year, for the first time, the College sent up students for the public examinations, with very creditable results. New buildings have to be constructed owing to the increase of applications for admission to the Girls' School.

* * *

The Muhammadan (Madras), referring to the defective teaching of Persian and Urdu in the local *Madrasa*, says—"We now find from *Reis and Rayget*, that things in this respect are as bad, if not worse, in Bengal. Our contemporary discloses a most extraordinary condition of affairs for which all connected with the University are to blame,—teachers, examiners—who, by the way, are also compilers of text-books, "unsuitable, objectionable and incorrectly printed"—and, last, though not least, the higher officials who recommend as Fellows gentlemen who, beyond being the happy possessors of high-sounding titles attached to their names, cannot claim one single qualification, entitling them to represent the Muhammadan Community in the University."

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Mr T. C. Lewis, M.A., Inspector of Schools, Lahore Circle, is engaged in the very laudable endeavour to establish District Associations of Teachers in the Punjab. Last August he addressed Government with a view to securing from the local bodies aid towards the printing and distribution of Reports, and half the necessary travelling expenses of all Secondary School Teachers on Rupees 80 a month (or on such other minimum as may be fixed) who attended Association meetings; and proposed that, as a beginning, a first meeting of an Association of Teachers of the Lahore District should be held in Lahore during the Christmas holidays. This meeting was duly held; and an interesting paper, written

by Mr. Lewis for the occasion, may be read in the February number of *The Punjab Magazine*.

It is very strange that an offence is considered punishable in one Province, and not in another. Rakhaldas Ghose was charged not very long ago by the University of Calcutta, with producing a false certificate, with the intent of being allowed to appear at the examination. The High Court acquitted him, because Sec. 471, under which he was charged, applied to such forged documents as were meant to substantiate "claim" to some property. But the High Court of the N. W. Provinces holds quite a different view of the Section in question. One Bhusan Sing produced a false certificate, purporting to have been signed by the Principal of the Canning College, Lucknow, that he had attended the requisite number of lectures, and he thus obtained admittance in the Queen's College, Benares. The certificate, afterwards proving false, Bhusan Sing was prosecuted with the result that the High Court found him guilty and sentenced him to 6 months hard labour under Section 471 of the Indian Penal Code, holding that he had used as genuine a forged document, knowing it to be forged. Either the High Court of the N. W. Provinces or the High Court of Calcutta is in the wrong. But in any case it is an anomaly, and the Government should make the meaning of the section more clear.—*National Guardian*.

"L." in the *Indian Nation* of April 3rd, adverts to what he regards as three very essential defects in the revised rules for the Premchand Roychand Studentship Examination recently published in the *Calcutta Gazette*. (i) Literature is handicapped. (ii) The examination is restricted to one language. (iii) The number of subjects is limited to two, whereas the old rule was that a candidate should take not less than three subjects and not more than five. The modern tendency, and very rightly so, is to specialize. Science, too, should be encouraged, especially in such a backward country as India, even at the expense of Literature. Literature is cultivated of the many; Science only of the few. The policy that tends to increase the number of the few who devote themselves to Science in India is a sound policy. It should be borne in mind that all Studentships in all Universities are, and ought to be, awarded only to help able men to specialize. Again, the rules applicable to this particular Studentship have no reference to the whole body of students that pass through the University course, but only to a distinguished few. What the Examination has lost in extension, it has gained in intension. The new rules seem to have been framed by the Syndicate of the Calcutta

University to suit modern theories and Indian requirements, and so command our hearty approval.

The prize distribution of the Alexandra Native Girls' English Institution, took place on March 17th, at the Framji Cowasji Institute, presided over by the Hon. Mr. H. M. Birdwood. The prizes were distributed by Mrs. Birdwood. The Maharaja of Kapurthala and his suite were among those present. The Chairman spoke of the time—many years ago—but within the memory of one still living, when not a single Parsi lady in Bombay "knew one word of English, to say nothing of French." Yet now, many have mastered not only the perplexing intricacies of the tongue which Shakespeare spoke, but even the delicate tones and inflections of the French language." Mr. Birdwood reminded the audience of the great risks that attend the absence of female education, for its spread is not only "desirable for the refining and ennobling effect it has on the characters of men," but the neglect of it is "absolutely suicidal, for where the women remain uneducated, the civilization of men is an unnatural, artificial thing, which cannot endure. Once educate the women, however, and you have something that will grow. You educate then, not individuals only, but families and nations." The Report read by the Hon. Secretary, Mr. J. C. Cama, gave a satisfactory account of the progress of the pupils belonging to the institution.

The estimation in which learning is commonly held among the peasantry of the Indian village communities is clearly brought home to us by a story told at the recent anniversary of the Guntur Teachers' Association. A lecturer in a college had once to pass through a village where he was a stranger. The people at first mistook him for a high official, left the pail where they were squatting, and came out with low salaams. They were soon undeceived for there were wanting some of the paraphernalia that they expected, and above all that being with the belt and badge, that has such a mysterious influence in out-of-the-way places—an influence sometimes even surpassing what can be commanded by the officer whom he represents. They remained in idle curiosity; but when they were told by him what he was, they laughed outright and resumed their seats and their business, which was gambling. When such is the treatment accorded to one with academical honours thick upon him, the scant regard and sometimes positive disrespect shown to the village schoolmaster may be easily imagined. This is no doubt a sad state of affairs, and one for which there is unfortunately no remedy so long as the present social system with its stereotyped divisions into castes and

192

trades prevail in India. But is the position of the village school-master any better in Christian Spain, once the proud sovereign of the world, than it is in non-Christian India? Let those of our readers who may think so, look at the extracts from *La Educación Moderna* in our March number, and judge.

We extract the following from Dr. Duncan's review of Major Love's Report on the working of the College of Engineering, Madras, for the Calendar year 1892: "Staff—Major Love resumed charge of the Office of Principal in January 1892 after completing a course of instruction at the Military School, Chatham, and Mr. J. J. Whiteley, Executive Engineer," was about the same time appointed to act as Professor of Engineering during the deputation of Mr. Chatterton to the Public Works Department. Mr. Middlemast left for England in December last on six months' leave on medical certificate. M.R.Ry. C. Krishnan, Assistant Chemical Examiner, was temporarily engaged to supervise the work of the Engineer students of the First Division in the Chemical Laboratory.

Strength.—Excluding the students in the practical courses and the

	Strength on the 31st Dec.			
	1889.	1890.	1891.	1892.
Engineers	17	12	11	10
Engineer Subordinates	37	47	65	77
Draughtsmen	18	21	40	51
Surveyors	12	23	32	37
Artisans	24	28	35	34
Military probationers	1	5	4	5
Total	109	136	187	214

special students, there were on the rolls at the close of December last 214 against 187, 136, and 109 on the corresponding date in 1891, 1890 and 1889 respectively, as per particulars in the margin. The strength of the College during the year is the highest since the re-organization. The number of admissions into the several

classes, the Engineer-class excepted, reached the maximum number prescribed in the rules and for which accommodation could be found. There was a marked improvement in the average attendance. Major Love attributes the small size of the Engineer classes chiefly to the high cost of Engineering education in the Madras Presidency, compared with rate in other Indian institutions, and to the limited advantages held out. Major Love's suggestion that the Board of Examiners should meet in conference and submit the draft question papers set to mutual criticism before they are finally accepted fully meets with the Director's approval and should be acted on henceforward. The Director is glad to note that

the College has been making steady advance in various directions under the able management of Major Love."

We learn from the Report on the Reformatory School, Chingleput, for 1892, that the school was 5 years and $2\frac{1}{2}$ months in existence on the 31st December last. During this period 229 pupils had been admitted. The work done in the school was well summarized as follows by Mr. K. Ramachandra Aiyar at the annual Distribution of Prizes in 1892. "The effort made here is, as it is stated, to develop the latent good qualities when the young mind is still fit to receive impressions. Taken away from vicious surroundings, taught by precept and example the eternal truths of morality common to all mankind, instructed to be able to read, write and cipher, trained in some industrial pursuits, clothed and fed with due observance of the laws of sanitation, the Reformatory boy bids fair to become a useful member of the society to which he belongs, nay, a factor for promoting good in his own neighbourhood." The general educational course followed is in accordance with the new curriculum prescribed for aided and recognized schools, the subjects taught being the three compulsory ones in the vernaculars (Tamil and Telugu), English, Arithmetic, Action Songs, Geography and the History of India. Only three hours during the day are devoted to general education. Five industries—Carpentry, Blacksmiths' work, Tailoring, Weaving and Tape-making were taught in the Institution. Mr. H. Irwin, C. I. E., Chairman of the Board of Examiners, Government Technical Examinations, in reporting on weaving, remarked that "the samples of the weaving from Chingleput are far superior to those submitted from the Nazareth School." Mr. A. G. Cardew, C. S., Inspector-General of Jails, on inspecting the school "was struck by the height of many of the boys, which seems evidence of good feeding and careful treatment." Surgeons-Major Sarkies and Thomas had charge of the Institution, the former from 1st April to 22nd May, the latter from 5th July to the close of the year. Mr. Lewis, the Deputy Superintendent was in temporary charge during the interval.

Dr. Duncan in his review of the Report remarks that the efficient condition of the Reformatory reflects much credit on the Superintendent and his Deputy. They have much up-hill work before them and their efforts to keep up and improve the school as a reformatory institution must be continuously sustained. This aspect of the school should under no circumstances be subordinated to the attainment of proficiency in literary or industrial subjects. The Director is sure that the Superintendent and Deputy Superintendent will guard, against this.

193

Licut.-Col. J. R. Watson, S.C. (retired) is forming classes in Hindustani at Coonoor, the famous health resort of the Nilgiris. He has had a wide and varied experience of the language in various kinds of employment, in many military and in various other appointments,—Civil, Judicial, Magisterial, Political, &c., during a long term of years. In the following extracts from his prospectus, he shows the lines on which he intends to proceed, and at the same time lays his finger on the weak points of both the teacher and the taught, the *munshi* and the competition-wallah. "The native *munshis* seldom or never possess a competent knowledge of the English language, with all its complexity, fine shades of meaning, numerous idiomatic expressions, phrases, proverbial sayings, &c., and it is therefore almost impossible, with their aid alone to acquire a correct knowledge of the equivalent idioms, &c., in Hindustani; and this is the true reason why in the Examinations, the EXERCISE presents such difficulties to the candidate taught by native instructors only. In speaking Hindustani too, the English learner, in endeavouring to express his ideas in Hindustani, uses Hindustani words, more or less incorrectly pronounced, put together after the *English Idiom*, and with the *wrong mode of expression*, not having been taught the *very differing*, though often very simple equivalent Hindustani Idioms, and *Eastern modes of expression*, the *munshi* not correctly or adequately apprehending the exact meaning of the English required to be expressed in Hindustani and therefore *not being able* to give proper equivalent idioms, phrases, &c. Such speaking of the language is *perfectly useless for all practical purposes*, being *wholly unintelligible* to the *average Native of the country*, and *worse than useless*, for it has to be slowly and wearily *unlearned*." Colonel Watson holds that the many "simple idiomatic expressions, phrases, proverbial sayings, and the like, the knowledge of which is indispensable to efficient translation from English, are best taught to Englishmen by an Englishman who has had to learn them himself, not without much time, trouble and hard work." Classes will be going on all the year round, so that gentlemen can choose their own time. Terms:—Rupees forty-five a month. No claims made on the Government allowance on passing candidates. Coonoor, the seat of instruction, offers many advantages—an excellent climate, full leisure for hard and regular work, capital hotel accommodation. "Privilege Leave" and "Language Leave" can be utilized by officers for coming to Coonoor for instruction. So also can "Leave on Medical Certificate," as there is no healthier climate than Coonoor, with its two resident Medical officers. Full particulars may be obtained from "Col. J. R. Watson, Brookview, Coonoor, Nilgiris."

LITERARY NOTES.

Mr. Herbert Spencer tells with amusement of a letter he received not long ago from an American publisher, asking "how much he would take for the exclusive right to publish his poem, the 'Faerie Queen,' in the States."

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The much discussed flag which Barbara Frietchie was said to have waved "over the heads of the rebel host," and which was so beautifully immortalized by Whittier, is now in the possession of her niece, Mrs. Handschers.

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Lomonsoff recalls the saying of the Roman Emperor, Charles V., to the effect that Spanish was the language we should use in addressing the Divinity; French with our friends; German with our enemies; and Italian with ladies.

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"Indian Theogony," the last part of Dr. Oppert's *magnum opus* "On the Original Inhabitants of Bharatavarsha or India" has now been completed, and the last sheets have been forwarded to the home publishers. The whole work may soon be expected back in the country in which, and about which, it was written.

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In the April number of *The Madras Christian College Magazine*, Mr. S. Gopalaswami Aiyangar, B.A., B.L., gives an interesting collection of anecdotes about Pugalandi and Ottakkoothar, two celebrated Tamil poets "who adorned the court of Kulottunga Chola, the great patron of Tamil literature."

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The work of the New York City schools for the World's fair is to be bound in volumes of about 1,000 pages each and will take about 1,000 volumes. There will be views of school buildings and of classes at work; a phonograph will give an idea of the singing. Dr. Paul Hoffmann will have charge of the work in Chicago.—*School Journal*, N. Y. & C.

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Early copies of the first volume of the new Indian Historical Series entitled "Epochs of Indian History" and edited by Mr. John Adam, M.A., Principal, Pachaiyappa's College, Madras, have already reached India. The book deals with Ancient India 2000 B.C.—800 A.D.; is by Mr. R. C. Dutt, C.I.E., I.C.S.; has two maps—a Physical one of India and another of Northern India in the Vedic and Epic Periods, and costs half a crown. It is published by Messrs. Longmans & Co.

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194

An entire booklet by Mrs. Caroline H. Dall is devoted to the real *Barbara Fritchie* (here so spelled) of Whittier's fine and famous lyric. Mrs. Dall shows once more, at a little greater length than usual, what has for some time been known,—that the poet was in the main correct in his statements, but that in some minor points he was misinformed, or indulged in poetic license. (16mo, cloth, illustrated, pp. iv., 99, Boston: Roberts Brothers. Price, \$1.)—*Sunday School Times*.

Dr. Pollen states that "as a mental exercise the study of Russian brings its own reward. It educates the learning faculties in a way no other language, except Greek, does. Some Russian writers regard their language as a gift from on high, and speak of it as if it had leaped from the head of Jove like Minerva, 'full grown' in perfect panoply."

The humorous side of the same question was forcibly put last year in *The Globe* (8th August 1892) by Mr. A. A. Sykes, himself a first-rate Russian scholar and translator of Gogol's "The Inspector-General" (*Revizór*). He wrote to the effect that there can be no fitter mental discipline or moral stimulant than a protracted study of Reiff's *Grammar* or an occasional dip into an alphabet of thirty-six letters (most of them apparently wrong side up) is in itself a liberal education! And when the neophyte is confronted with Reiff's twenty-seven declensions and an unlimited number of conjugations, with more to follow in the shape of "aspects" and participles, he feels indeed that if he does not perish in the attempt, the gentle art of linguistics has no further terrors for him and he is straightway fortified in his determination to attack Chinese!

Messrs. W. H. Allen & Co. have just issued a revised edition of their Six Sheet Map of India by John Walker, Geographer to the India Office. This map was executed by order of the Government of India, and has now been carefully corrected to the present year from the latest authorities, showing railways already finished and in progress. It includes Burma, and indicates the subdivisions into Collectorates in British India, as well as the position and boundaries of each Native State. The price of the map (6 sheets) is £2; in cloth case, mounted on linen, £2 12s. 6d.; mounted on rollers, varnished, £3 3s.—*Indian Magazine and Review*.

Among the announcements by Messrs. G. P. Putnam's Sons, we notice the second part of "An Introduction to English Economic History and Theory" by W. J. Ashley, M.A., Professor of Economic

History in Harvard University. The volume carries us, we are told, from the fourteenth to the sixteenth century, and considers such economic questions as "The Supremacy of the Towns," "The Crafts," "The Woollen Industry," "The Agrarian Revolution," and "The Relief of the Poor." If these subjects are at all adequately treated, the book would be of great service in the Libraries of Indian Colleges for the use of students presenting History for the B.A., and M.A., Degree Examinations. More than this we cannot say until we have seen the book.

Messrs. Macmillan and Co., in their May circular, announce the publication in April of (1) "Memoirs of my Indian Career," by Sir George Campbell, M.P., K.C.S.I., D.C.L.—a man who left, as his Editor, Sir Charles Bernard, truly remarks, a permanent mark for good on the administration of Bengal, the Central Provinces, Oudh, and part of the Panjab (Two vols, Portrait and map. 21s. net.); and (2) "The Novel: What it is" by F. Marion Crawford (18mo. 3s.), in which the author, himself a novelist of high repute, gives reason for defining a novel as "an intellectual artistic luxury." (3) A book which Indian Colleges will look forward to with some interest, and which the firm hopes to have ready by September, is a "Physiology for Beginners," to be published at about half a crown, and bearing on its title page the honoured name of Michael Foster, M.A., M.D., LL.D., F.R.S., Professor of Physiology in the University of Cambridge, and Fellow of Trinity College, Cambridge. It is intended primarily for the South Kensington Syllabus, but if it suits the F.A. Standard of the Indian Universities, its lower price and its author's fame are likely to make it supplant Huxley's little book published by the same firm.

Circulars are issued monthly by the Johns Hopkins University, Baltimore, U. S. Circular No. 101, recently received by us, gives a complete Register of Students for 1892-1893, with details as to residence, degree, institution, principal subjects taken up, and city address; a list of all the classes held in every subject and of the students attending each class, and a time-table. Circular No. 102, (January, 1893) is mainly devoted to Philology. It contains an interesting article on "The Werewolf in Latin Literature" by Kirby W. Smith; another by W. Muss-Arnolt on "Semitic words in Greek and Latin"; and a third, which we reprint elsewhere, by A. Gudeman, on "Krates of Malloa and Columbus." It also contains the Latin text of the invitation from the University of Padua to send a representative to the celebration of the ter-centenary of Galileo's election to the Chair of Mathematics.

No. 103 (February 1893) is mainly devoted to the Geography and Geology of Maryland, especially of the vicinity of Baltimore, and shows that the Professors of the Johns Hopkins University keep an eye to their own locality, and do not live altogether in a world of books, or a visionary Olympus.

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"A VIRTUOUS WOMAN IS A CROWN TO HER HUSBAND."—This perhaps alludes to the wreath or crown worn by brides, as their symbol of honour. The virtuous wife confers this honour on her husband. We may trace this custom in the crown, or, rather, head-dress, of precious metal, with a long, tapering horn projecting from it, which is still worn by a Druse maiden of the Lebanon, as the most important part of her wedding ornaments. Even nearer home the custom has survived in the silver crown worn by every Norwegian bride at the marriage ceremony, and which, of course, is generally borrowed for the occasion. In old writers, any ornamental head-dress worn as a badge of honour is called a crown, which is by no means an exclusively regal symbol. The crowns of the Assyrian kings were like a high mitre with silk bands; those of the Persians approach very nearly the modern turban. The Levitical priest's mitre was often called a crown, and so were the wreaths of victory or triumph in all ancient as well as modern nations, whether worn in warfare or in the great games of Greece, or in the peaceful triumphs of poesy and art. The crown, in all its varieties, from the bridal wreath to the conqueror's diadem, had a very simple origin,—first from the necessary use of a fillet to bind the hair, and then from the natural custom of encircling the head with flowers or sprigs, in token of rejoicing or triumph.—*Sunday School Times*.

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Messrs. Archibald Constable & Co. have sent us a small but interesting pamphlet, giving full particulars about the new Anglo-Russian Literary Society. The first meeting was held on the 3rd of last January in Room No. 6 of the Imperial Institute, London, S. W., a room courteously placed by the Committee of the Institute, when required, at the disposal of the new Society. The objects of the Society are:—1.—To promote the study of the Russian Language and Literature. 2.—To form a Library of Russian books and other works, especially interesting from an Anglo-Russian point of view. 3.—To take in Russian periodicals and newspapers. 4.—To hold monthly meetings, periodically, for the reading and discussion of suitable papers, writing and speaking in English or Russian being alike admissible. 5.—To promote friendly relations between Great Britain and Russia.

196

The opening address on "The Russian Language and Literature" was delivered by Dr. John Pollen, I. C. S., whose masterly translations in his *Rhymes from the Russian* have made him favourably known as a sound Russian scholar. In the course of his able and interesting address Dr. Pollen says:—"I carried with me to Russia, in addition to a knowledge of the peasantry and constitutions of my native land, a thorough acquaintance with our Indian Village system, and our methods of administration, from the sub-divisional Local Boards up to the Secretariat and Legislative Councils. I consequently found little new or startling in the system of Imperial administration, or in the constitution of the village communities, for they are both very like our Indian systems, and the East and West curiously conjoin in Russia. To my surprise I found a happy, contented, cheerful, companionable, hospitable, loveable, self-respecting people, peaceably disposed towards all men, full of kindness and of quaint curiosity towards foreigners, and cherishing profound and very flattering regard and admiration for the English in particular."

Here is a picture of the Russians, strangely at variance with current opinion.

GENERAL NEWS.

Italy is not known as a scholastic country, and yet it has the same number of Universities as Germany,—twenty-one—while the population is only a little more than half as great.

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The new Imperial Institute is practically a vast club to which both ladies and gentlemen are admitted by an annual subscription of £2. The old Indian and Anglo-Indian members of the Northbrook Club have joined it *en masse*, and have special privileges in the new Institution.

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Philadelphia has lately established an Educational Club, of which J. Monroe Willard is president and Monroe B. Snyder, corresponding secretary. We hail with gratitude all such spontaneous movements looking to the stimulation of professional spirit among teachers. Self-help and intelligent organization alone can lift our calling.—*The New Education* (New York.)

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The proposal of the Italian Minister of Education, Signor Martini, to suppress a certain number of the Italian universities, has raised an opposition which may possibly lead to the overthrow of the ministry. The consolidation proposed by the Minister is really the only means

of maintaining a due proportion of institutions with the equipment required for modern studies, but in the present state of things it is not likely to be accepted.

The month of April has bristled with Conferences. The Teachers' Guild has held its meeting at Oxford. The School Inspectors have met, so have the Irish Teachers, the National Union of Catholic Teachers, and last, and by no means least, the N. U. T. This last body, which numbers now close upon twenty-four thousand members, has had a large and very successful gathering at Liverpool—probably the largest gathering of teachers that has ever met in England.—*Ed. Times.*

It requires moral courage sometimes for a youth at school or in college to keep himself clear from questionable customs; to refuse to join in anything unseemly; to risk giving offence rather than to laugh at the coarse jest or listen to the vulgar song; to follow alone, if need be, the low, clear voice of duty and pure home love, and to do under any temptation the one right thing—but the making of men is in such valour of soul.—*Journal of Education (N. E.).*

Besides the three Indian Universities admitted by the University of Oxford to the enjoyment of the privileges conferred by the Oxford Statute of 1887 on such Indian and Colonial Universities as may apply for them, and explained by us in one of our editorial notes, only two other Universities have as yet availed themselves of these privileges, viz., the University of the Cape of Good Hope and the University of Sydney, both admitted on November 27, 1888. No Canadian University has as yet applied.

Russian education is at low-water mark. Out of 195,000 recruits to the army in a recent year, 145,000, or three-fourths, were unable to read and write. "The Sahara of ignorance" is the way one critic speaks of it. There are 18,000 schools where there should be a quarter of a million; and this, notwithstanding all the encomiums passed upon Russians and their language by Dr. Pollen! Evidently the Russians are not such enthusiasts about their own language as are the Russophiles of other lands.

The Gilchrist Trustees have elected five ladies to the Special Gilchrist Travelling Scholarships for Women Teachers to America this year. Each lady will receive £100 to enable her to spend two months in studying and reporting upon Secondary Schools and institutions for the

training of women in different parts of the United States. The Trustees propose to publish the Reports, which it is hoped, will prove of value as a contribution towards the solution of some of the problems of Secondary Education in England.—*Bo. Ed. Record.*

The death of the Chancellor, the Earl of Derby, on April 20th, is a serious blow to the University of London. It is but just two years, it is true, since he took office; but he had previously been for so many years an active member of the Senate, that he assumed the Chancellorship with an already acquired familiarity with the constitution, history, and business of the University, which left nothing for him to learn. In the imminent crisis in the University for London question, his influence and judicial, as well as judicious, cast of mind will be sadly missed; and we fear it will be impossible to find a successor who will bring quite the same weight to bear upon this and other matters.—*Ed. Times.*

School life offers many opportunities for tempering a soul to high honourableness. A boy can learn to be honourable in all things with other boys and towards his teachers, never telling an untruth, never taking a mean advantage, never speaking a low word, never hurting one weaker than himself. In school life one can gain a wholesome spirit of good comradeship, learning not to be shut up in himself, but to live heartily and happily with others. Opportunity also is afforded in school life for the exercise of pluck and determination, for gaining that strength of will which men and women need so much to acquire in order that they may live worthily.—*Journal of Education (N. E.).*

The radical weakness of the high university expert-type of criticism upon the American system of universal education is in not recognizing that our system does not propose to risk all things on the perfection of any class of schools. The American school is environed by the mighty educational forces of a free press, the most effective development of free public speech, free labour and free manhood suffrage; all embosomed in a social order which is a perpetual stimulant and inspiration to the noblest human ambition. To test either country district school, city graded school, academy or college by the German system, whereby knowledge is ground into a people by pressure of the most subtle, cultivated and elaborate despotism of modern times, simply ignores both the American method and ideal of culture.—*Boston "Education."*

Close upon the appointment of Mr. Wilkinson Northrop as one of H. M. Inspectors of Schools, adverted to in our last issue, follows that of Mr. Barnett, Principal of the Borough Road Training College, to a similar post. Mr. Barnett entered upon his duties on April 10th. The Rt. Hon. A. H. Dyke Acland, M. P., Vice-President of the Council on Education, is evidently a thorough-going reformer, who means to strengthen the Inspecting Staff by the appointment of trained men who have had a wide experience of, and are therefore the most competent judges of, the highest form of school-work. Under Mr. Dyke Acland's régime, practical educationists have a chance of preferment, and Inspectorships, the plums of the English Education Department, are no longer as a matter of course conferred on brilliant University Honourmen, who have friends at court.

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Of the many applicants for the vacant Principalship of the Borough Road Training College, the one selected was Mr. H. L. Withers, an old King's College School-man, who held an open scholarship in Classics at Balliol College, Oxford. In 1884 he won a first class in Classical Moderations, and in 1887 a first class in Literaræ Humaniores. He has since been a schoolmaster in a public elementary school in Oxford, in the city of London School, in the Manchester Grammar School, and at Clifton College.—*Educational Record*.

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In a paper recently read before the Society of Arts by Sir Philip Magnus, on the subject of Technical Education, the following are laid down as recognized and established principles:—(1) All trade teaching should be associated with drawing, or should have reference to the principles of science underlying it; in other words, it should rest on a basis of theory. (2) The teaching should be illustrated by reference to the instruments used in the trade. Hence the necessity of apparatus and tools, and of laboratory and workshop appliances. (3) The instruction must be wider than the section of the trade in which the student is engaged. It must help to correct the cramping influence, and must not too closely follow the course of the division of labour. (4) The teaching should be primarily adapted to the requirements of students engaged in the actual practice of the trade, and not to amateurs.

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At the Conference of the Teachers' Guild, held at Oxford in the third week of April, several subjects of interest to teachers were discussed; but pre-eminent among them was the thorny question of the relation of the State to Secondary Education, with special reference to the Bills before Parliament. Among those who took part in the discussion there

was practical unanimity in disapproval of most of the essential features of the Bill. This and other Conferences have clearly shown that a great diversity of opinion undoubtedly exists on the subject, and that fuller and more accurate information as to the facts is needed. This being so, the conviction is forced on us that what is more urgently required than the establishment of new schools, is the passing of such a Registration Bill as will secure at no distant date an adequate supply of properly trained teachers for Secondary Schools.—*Ed. Times*.

Education for citizenship while an old idea is receiving much new thought and being sought by many new methods, and is strongly insisted on by the Right Honorable A. H. Dyke Acland, Vice-President of the Committee of Council on Education in the present Liberal Ministry. All education helps to make better citizens, but it is coming to be recognized that familiarity with the history and practical workings of our different civic institutions, both in times of war and in times of peace, is not only part of the mental equipment of a well educated person, but also forms the best preparation for the entrance of the scholar into politics, and of the average citizen into the ordinary duties of life. When the study of civics in its history and present relations shall be introduced into our schools and put on the same footing with reading, arithmetic and book-keeping, then we shall learn how to make and keep laws as readily as we now learn how to make and keep money.

The Return of the Education Department, giving the expenditure from the grant for public education in England and Wales for the year 1892, is a very important document, showing as it does the expenditure on some six million children whose names stood on the registers of inspected schools. The total expenditure for the year amounted to £5,965,516 3s. Of this amount the day schools received £3,687 15s. 9d., and the evening schools £36,610 9s. 6d. In addition to these sums there was paid in fee grants for day scholars under the Free Education Act of 1891, £1,842,930 12s. 6d. The Training Colleges received £138,332 18s. 5d.; pensions and gratuities to teachers amounted to £18,477 9s. 4d.; and the cost of administration was £232,937 9s. 7d. A classification of expenditure according to denomination shows that schools connected with the Church of England received £2,513,280 19s. 4d.; British and Undenominational schools, £400,965 4s. 10d.; Wesleyan schools, £196,772 12s. 4d.; Catholic schools, £293,885 4s. 12d.; and Board schools, £2,318,635 4s. 11d. From the above figures it will be seen that the English Education Budget amounts roughly to £1. per pupil on the register of inspected schools.

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The Revised Instructions issued to Her Majesty's Inspectors, and applicable to the Code of 1893, contains the following interesting paragraph :—" It should not be forgotten that the principles which underlie the system of kindergarten occupation do not cease to be applicable when a scholar quits the infant school or department. For example, elementary drawing, dialogues, picture and object-lessons, the cutting out and inventing of paper patterns, modelling, weighing and measuring, and musical drill are not only useful in diversifying the day's employments in the lower standards of the school for older children, but they will be found to increase the brightness and intelligence with which those children pursue the regular course of elementary instruction. Moreover, such exercise will serve as a valuable link connecting the work of the infant school with some of those forms of technical or manual training which are now with very great advantage adopted in the upper classes of many good schools. It is one of the chief objects of the kindergarten to establish a right and harmonious relation between those lessons which are addressed to the memory and the understanding of a child, and those interesting manual and other exercises which call forth his active and observant powers. And this is an object which ought to be kept steadily in view throughout all the subsequent stages of a scholar's career in a public elementary school."—*Ed. Times.*

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The following advance in industrial training in Scotland is full of suggestiveness. The committee of the Technical Institute of Dundee adopted resolutions for the current year, providing for the "highest technical instruction suited to the requirements of Dundee and the district of which Dundee is the centre." The institute had been furnishing occasional courses in a telegraphy, electric light and power distribution, tools, wood-work, cabinet-making, and wood-carving, in addition to the facilities furnished for industrial training by the private schools and academies, including several supported by large spinning establishments; but to these are being added at this time and this year, courses in photography, fermentation in relation to baking and brewing, brick work and masonry, plaster work, typography, engraving and lithography, practical art work in brass, iron, and copper, metal plate work, iron and steel manufacture, metallurgy of common metals, watch and clock making, hygiene with special aim to meet the needs of plumbers, architects, and sanitary inspectors, naval architecture, and lastly a preparatory short course in weaving and pattern designs. A glance at the scope and aims of this one school suggests how it stands in relation to paper folding and the manufacture of toy machinery; and on the other hand the relation

is suggested, of the state to the industrial and mechanical development of her citizens.

* *

An English school teacher has recently published a collection of replies to questions made in the schools, some of which are very amusing. To a question, Who was Esau? one boy replied: "Esau was a man who wrote fables and who sold the copyright to a publisher for a bottle of potash." Another one said: "Oliver Cromwell was a man who was put into prison for his interference in Ireland. When he was in prison he wrote *The Pilgrim's Progress* and married a lady called Mrs. O'Shea." This is an odd jumble of John Bunyan and Charles Stewart Parnell. In reply to a question, Who were the Phœnicians? one answer was: "The inventors of Phœnician blinds." The word *immaculate* was defined as "state of those who have passed the entrance examination at London University." This pupil got *immaculate* and *matriculate* mixed. One definition of *hydrostatics* was: "When a mad-dog bites you. It is called *hydrophobia* when a dog is mad and *hydrostatics* when a man catches it." In the way of anatomy we have the following definition. "The heart is a comical-shaped bag. The heart is divided into several parts by a fleshy partition. These parts are called right artillery, left artillery, and so forth. The function of the heart is between the lungs. The work of the heart is to repair the different organs in about half a minute." Judging from the freaks that Cupid plays by manipulating some people's hearts one would say it is indeed "a comical-shaped bag." Perhaps the "fleshy partition" accounts for the number of deaths by heart failure. A pupil who was asked to explain the words *fort* and *fortress* wrote: "A fort is a place to put men in, and a fortress a place to put women in." Evidently this youngster did not believe in co-education of the sexes. One boy defined *divine right* as "the liberty to do what you like in church," and another one defined a *Papal bull* as "A sort of cow, only larger, and does not give milk."—*Journal of Education (N.E.).*

Contact of minds stimulates thought and awakens dormant powers.

* *

The successful primary teacher is able to be himself a child.

* *

Touch the soul of the child. You will feel an answering thrill, God-given, which will more than compensate for the extra effort made in winning him, and more than that, you can now instil into his mind high ideals of character which will be of lasting value, and which you never could have implanted otherwise.

REVIEWS AND NOTICES OF BOOKS.

DIFFERENTIAL CALCULUS FOR BEGINNERS by *Joseph Edwards M.A.* London, *Macmillan and Co.*, 1893.

The author's larger treatise on the Differential Calculus naturally led us to expect much in regard to this elementary book for beginners, and we are glad to say that our expectations have been fully realized. It seems to us to be quite the proper sort of text-book for the B.A. and B.E. Degree Examinations of our University. We do not think it fair to bestow special praise on any particular part of the book as the whole book, by reason both of what it contains and what it omits, is a model of its kind. The addition of a chapter on the tracing of curves would make the book even more suitable than it is to students of Southern India.

ALGEBRA, VOL. I. by *Saradaram Ray, M.A.* Calcutta, 1892.

NOTWITHSTANDING the multiplicity of text-books on a subject like Elementary Algebra, a book like the one under review will always be a welcome addition. To say that the book has passed through three editions is to say that it has found favour with students. Dr. Burnside of Dublin pays the author a high compliment by saying that he has noticed several original ideas in the work. In the preface to the third edition, the author observes that six new chapters have been added—"one on Resolution into factors, one on Fractional Equations, one on Equational Arithmetic, one on Identities and Equalities, one on Irrational Equations and one on Quadratic Equations." The chapter on Equational Arithmetic is in our opinion a very interesting feature of the book. Any candidate for the University Matriculation Examination will after a careful study of this book find even a difficult Matriculation Algebra paper, not difficult enough to puzzle him.

A MANUAL OF ELEMENTARY STATICS AND KEY TO ELEMENTARY STATICS by *J. T. Hathornthwaite, M.A.* Bombay.

We regret the delay in reviewing an excellent little book on Elementary Statics by Mr. J. T. Hathornthwaite, M.A., Professor of Mathematics, Elphinstone College. As the author says in his preface, "this Manual has been prepared with the special purpose of meeting the wants of students for the Matriculation Examination of the University of Bombay." We note with pleasure that, throughout the book, there are abundant indications of a desire to bring the subject down to the

capacity of the learner without any sacrifice of scientific accuracy. The student is not expected to possess any knowledge of Trigonometry or of Euclid beyond the first four Books. The last three chapters on the mechanical powers seem to us to deserve special praise for lucidity of explanation and aptness of illustrations. Candidates for the B.A. and B.E. Degree Examinations of the Madras University may with advantage consult the manual under review. Though it deals only with a portion of the subject, yet that portion is of essential importance, and we have no doubt that a careful perusal of the manual will be a useful introduction to the study of larger treatises on the subject.

The author has also published a Key to the manual. As a general rule, we do not approve of such "royal roads" to knowledge as Keys and Complete Notes. The author's purpose of "economizing the time and labour of teachers and of guiding private students" is right and proper, but there is just a danger of the student at School trusting too much to the Key and too little to himself or his teacher.

CARLYLE, BOSWELL'S LIFE OF JOHNSON, Edited with Introduction and Notes by *Mark Hunter, B.A.* Madras. *V. Kalyanaram Aiyar*, 1893.

We can cordially recommend Mr. Hunter's edition of this essay to students and teachers alike. In his Introduction he gives a full and readable sketch of Carlyle's life, a careful account of the circumstances under which the essay was written, some excellent remarks on Carlyle's teaching, a useful summary of the chief points in Carlyle's style, and an analysis of the Essay. The notes are full without being redundant, and are specially valuable for their exposition and illustration, by quotations from his other works, of those points of Carlyle's teaching which occur in the Essay.

NOTES ON SILAS MARNER by *Mervanjee Framjee Mody*. Bombay. *Naserwanji M. Cooper*, 1893.

We should like to know why the writer of these notes gives "George Eliot's" Christian name as "Mary Anne" on page 5, and "Mary" on page 11. All other authorities agree that "Marian" was her name. There are various blemishes in the notes which show that the writer is not really sufficiently well acquainted with the niceties of the English language to instruct others therein. For example, 'lap' is 'any agreeable place'; tithes 'being the tenth part of the produce allotted to the clergy, are very acceptable because they contribute towards the regular religious instruction of the rustic population through the medium of the State-paid clergy'! "A treadmill" is explained by the

statement that it is 'a feature of English prison-discipline'. So is the crank, so are many other things. 'Jack' is a 'meat-jack'—what information does this convey to the Indian student who has never seen one? 'Tinder' is 'partially burnt linen', but no mention is made of its use or the fact that other substances may be used for tinder. 'Up to his tricks' is 'fully prepared to play any dodge'! 'Drab' is 'a sort of brown, the colour of Indian white clay, sold in cakes and esteemed for its detergent properties.' Fancy buying colour in cakes! 'Cape' is a 'neck-piece' and so apparently the same as 'collar'. 'To rattle on' is to 'speak ncisily'. We are told on p. 72 that Bob Cass was *fingering* hornpipe—a perfectly senseless statement. On p. 74 we learn that 'jigging' is 'dancing in a lovely jolting way'! These are not the only literary curiosities in these notes, but we have no space for more. The next time Mr. Merwanjee Framjee Mody (so he spells his name on the cover, but he gives a variorum spelling on the title-page) attempts to annotate the works of "a writer of the exceptional mental calibre of George Eliot," he will do well to submit his proofs to some one who has enough knowledge of English to preserve him from falling into absurdities.

XENOPHON'S ANABASIS, Bk. VI., edited by the Rev. G. H. Nall, M.A., in Macmillan's Elementary Classics Series, is an admirable little book, edited with scholarly care and thoroughness by a competent hand. The work meets the requirements not merely of school boys, but of students much more advanced. It has a good map, an analysis of the whole *Anabasis*, the life and works of the author, an appendix of various readings and their meanings, illustrations of all the armour mentioned in the work, and a valuable exposition of Greek military manœuvres based upon the works of Köchly and Rüstow, Vollbrecht and Rehdantz. And all this for only 1s. 6d. *It is a cheap book.*

VERGIL'S ÆNEID, Bk. I., edited by T. E. Page, M.A., in Macmillan's Elementary Classics Series, also costs 1s. 6d. There is no Preface or Introduction, as the Editor, like his author, who therein follows Homer, plunges at once in *medias res*. For boys we much prefer the Rev. Mr. Nall's method. But the notes make amends for all deficiencies. They are full, fresh, and interesting, and show the editor of the Odes of Horace at his best. The book, following the method of the series, winds up with a Vocabulary.

THE SCHOOL CALENDAR, 1893, by F. Storr, B.A., Whittaker & Co.—This is the seventh year in which Messrs. Whittaker & Co. have published this excellent handy little guide to all the public Examinations and open Scholarships in the United Kingdom. The book costs only a shilling, and should be in the hands of every Indian student who intends to visit England for educational purposes.

CHAUCEER by A. W. Pollard, M.A., (Macmillan's Literature Primers).—This excellent and much-needed little book supplies a real want. Chaucer is regularly prescribed in all our Indian Universities, and we hope soon to see a copy of this new Primer, which costs only one shilling, in the hands of every Indian student preparing for the B.A. Degree Examination.

HISTORY OF ENGLAND, by Arabella B. Buckley (with Maps), Macmillan's History Primers.—A handy compendium of English History from the pen of a pleasing and well-known writer. It will be found useful for school boys and old students who wish to recall rapidly the salient points of our history. The maps trace the growth of the Empire. A chronological table closes this handsome little book. Price one shilling.

CHAMBER'S BRIEF GEOGRAPHY OF THE WORLD, W. and R. Chambers.—This little book costs one shilling, and is well worth the money. We believe it would be found suitable for the pupils of our Indian Middle Schools.

BOOKS RECEIVED.

A TEXT BOOK OF DOMESTIC ECONOMY, by F. T. Paul, F.R.C.S. London, Longmans, Green & Co., 1893. Part I. with 96 illustrations, Price 2s.

MACMILLAN'S LATIN COURSE, SECOND PART, by A. M. Cook, M.A., London, 1893. Price 4s. 6d.

ADVANCED PHYSIOGRAPHY by R. A. Gregory and J. C. Christie, F.G.S. London, Joseph Hughes and Co., 1893. Price 4s.

WORDSWORTH'S POETICAL WORKS, Aldine Edition, ed. by Edward Dowden: Vols. IV., V., VI. & VII: London. George Bell & Sons, 1893. Price 2s. 6d. each.

TEN BRINK'S ENGLISH LITERATURE, VOL. II, translated from the German by W. C. Robinson, Ph. D., London. George Bell & Sons, 1893. Price 3s. 6d.

JAMES THOMASON, by Sir Richard Temple, Bart, M.P., G.C.S.I. (Supplementary Volume to *Rulers of India Series*.) Clarendon Press, Oxford, 1893. Price 2s. 6d.

MADRAS EDUCATIONAL NOTIFICATIONS.

Appointments.

Fort St. George, April 4, 1893.

No. 30.—Surgeon-Major Crossdailie Miller Thompson, M.B., to be Professor of Medical Jurisprudence, Medical College, *sub. pro. tem.*, with effect from 1st March 1893.

No. 31.—Surgeon-Captain David Simpson, M.B., to be Professor of Materia Medica and Pharmacy, Medical College, *sub. pro. tem.*, with effect from 1st March 1893.

Fort St. George, April 11, 1893.

No. 32.—Mr. George Henry Stuart, M.A., to be Principal and Professor of History, *sub. pro. tem.*, Presidency College, from the date of Rai Bahadur P. Ranganada Mudaliyar's return to duty.

No. 33.—Surgeon-Captain Thomas Charles Moore to act as Professor of Hygiene, Medical College, during the absence of Surgeon-Captain A. E. Grant on leave, or till further orders.

No. 34.—Upper Subordinate Educational Service, Scholastic Branch :—

Grade.	Rank.	Name of Officer.	Designation of Post.	Nature of Appointment.
First	...	Mr. Edward Hugh Elliot, B.A.	Junior Professor of English, Presidency College.	Sub. <i>pro. tem.</i>
Second	...	Mr. Pierre Edwin Messinier, Second Assistant, Teachers' College, and Ag. Asst. Inspector of Schools, Seventh Division.	Headmaster, Mangalore College.	Sub. <i>pro. tem.</i> , <i>vice</i> Mr. J. Moss, retired.

Ootacamund, May 6, 1893.

No. 37.—The following promotions are made as sub. *pro. tem.*, consequent on Dr. Oppert's retirement :—

Dr. William Herbert Wilson, F.L.C., F.C.S., from the Second to the First Class.

Mr. Edward Parr Metcalfe, M.A., from the Third to the Second Class.

Rai Bahadur P. Ranganada Mudaliyar, M.A., from the Fourth to the Third Class.

No. 38.—M.R.Ry. Mittadar Seshagiri Sastri, M.A., Second Senior Asst. Professor, Presidency College, to be Professor of Sanskrit and Comparative Philology, Presidency College, and Curator, Government Oriental Manuscripts Library, sub. *pro. tem.*, *vice* Dr. G. Oppert, retired—in the Fourth Class of the graded service.

Ootacamund, May 27, 1893.

No. 42.

Name of Officer.	Designation of Post.	Nature of Appointment.
Mr. James Muthia Hensman, B.A., First Lecturer, Rajahmundry College.	First Assistant, Teachers' College, Saidapet.	<i>Vice</i> M.R.Ry. N. Vaidyanatha Aiyar, M.A., transferred. To join on relief by M.R.Ry. Hanumanta Rao.
Mr. Thomas Ridsdale Scott, B.A., Second Lecturer, Rajahmundry College.	First Lecturer, Rajahmundry College.	<i>Vice</i> Mr. J. M. Hensman, transferred.
M.R.Ry. N. Vaidyanatha Aiyar, M.A., First Assistant, Teachers' College, Saidapet.	Second Lecturer, Rajahmundry College.	<i>Vice</i> Mr. T. R. Scott. To join on relief by Mr. J. M. Hensman.

The Director resolves to make the following transfers :—

M.R.Ry. V. Kesava Menon, B.A., Sixth Assistant, Teachers' College, and Acting Sub-Assistant Inspector of Schools, Calicut Range, to act as Fourth Assistant, sub. *pro. tem.*, Training College, Calicut, *vice* M.R.Ry. M. R. Vaidyanatha Sastri, on other duty,—to join on relief.

M.R.Ry. R. Krishnama Chari, Acting Sub-Assistant Inspector of Schools, Ramnad Range, to act as Sub-Assistant Inspector of Schools, Namakal Range, sub. *pro. tem.*, *vice* M.R.Ry. T. R. Venkatarama Aiyar on other duty.

* M.R.Ry. T. S. Lakshminarayana Aiyar, Acting Sub-Assistant, Namakal Range, to take charge of the Calicut Range relief.—*Pros. No. 4975, dated 9th May, 1893.*

Grant-in-Aid Code (Ruling No. 1 of 1893).—Read endorsement No. 3810, dated the 6th May 1893 from the Inspector of Schools, Southern Circle, expressing his opinion that Article 26, Chapter III of the Code does not permit of Telugu being brought up as "Second Language" in a school in which Tamil is the Compulsory Language.

Though not specially stated in Article 26, Chapter III of the Grant-in-Aid Code, the provisions of that Article are evidently applicable also to Hindu pupils who bring up a South Indian Vernacular language other than Hindustani. (*Vide* Director's Ruling published on page 250 of "The Education Calendar and Directory.") It is intended to encourage the study of a District Vernacular language by those not belonging to the District, e.g., that of Tamil by Telugu pupils living in Tamil Districts and *vice versa*. But as the petitioner failed to present pupils in Telugu of his own accord, his request is inadmissible.—*Pros. No. 5742, dated 25th May, 1893.*

University.

In the list of text-books in Sanskrit prescribed for the B.A. Examination of 1894-95, page 465 of the University Calendar for 1892-93—

For Kādambari Pūrvabhāga read Kādambari Pūrvabhāga up to "nījabalasya viśrāmahētoḥ katipayān (divasān) atisthan" on p. 119 in Dr. Peterson's edition.

(By Order) SENATE HOUSE, 15th March, 1893.

In the list of text-books for Branch IV of the B.A. Degree Examination of 1893-94, published on page 468 of the University Calendar for 1892-93—

For

iv. *History of Ethics*—Aristotle's *Nicomachean Ethics*,

Read

iv. *History of Ethics*—Aristotle's *Nicomachean Ethics*, Bks. I. to V. (inclusive).

(By Order) SENATE HOUSE, 19th April, 1893.

Books.

Notice is hereby given that copies of the following Educational books have been received at the Office of the Director of Public Instruction, Madras, where they may be seen at all reasonable times.

TELUGU.

RS. A.

Ramayana, by Athukuri Molla. Edited by M.R.Ry. N. Subba Rao
Pantulu Garu, B.A., B.L., Rajahmundry 0 10
(Chintamani Series).

ENGLISH.

s. d.

1. Longmans' New Readers.
First Primer 0 3
Second Primer 0 3
Infant Reader 0 6
First Reader for Standard I 0 9

Second Reader for Standard II...	...	...	...	s. d.
Third Reader for Standard III...	...	...	...	0 10
Fourth Reader for Standard IV...	...	...	...	1 0
Fifth Reader for Standard V...	...	...	...	1 4
Sixth Reader for Standard VI...	...	...	...	1 6
	...	...	...	1 0

2. The Pitt Press Series.

Paradise Lost, Books I and II, Edited by A. W. Verity, Cambridge University Press.	...	...	...	2 0
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FRENCH.

Charlotte's Corday—a Tragedy by François Pousard	...	do	...	2 0
"Un Philosophie sous les Toits" by Emile Souvestre	...	do	...	2 0

GERMAN.

Maria Stuart, by Schiller	...	...	do	3 6
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TAMIL.

A Grammar of Tamil Grammars, by David Joseph, S. P. C. K. Press, Vepery	...	...	...	1 8
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(Ed.) D. DUNCAN,

Director of Public Instruction.

MADRAS, 10th May 1893.

INDIAN STUDENTS IN ENGLAND.

At the Easter Pass Examination, held at the Inner Temple in March, the Council of Legal Education have awarded pass certificates to the following: *Gray's Inn*: H. L. Kumar. *Middle Temple*: F. M. Sethna. *Lincoln's Inn*: K. Ramachandra. The following passed in Roman Law—*Middle Temple*: Ghulam Mohi Uddin Ahmed, D. N. Bahadurji, S. M. Hosain, Parina Nand, J. S. Rustom. *Inner Temple*: Zaffer Bahadur. *Lincoln's Inn*: H. Bose, S. R. Chelva Rayan, Mulji Devji Vedant. *Gray's Inn*: Harkishen Das Butra, Nanak Chand.

Mr. R. P. Vorah, L.M. & S., has passed the L.R.C.P. Examination of London.

Happiness is made, not found.

The study of form divorced from thought leads to inability to relate the two.

There are two freedoms—the false, where a man is free to do what he likes; the true, where a man is free to do what he ought.—Kingsley.

THE INDIAN JOURNAL OF EDUCATION

Vol. VII.
(New Series)

JULY 1893

[No. 79]

The Editor has to remind all LITERARY correspondents, as well as publishers forwarding books, magazines, etc., for review, that, to ensure attention, they should be addressed to him at PACHAIYAPPA'S COLLEGE, MADRAS; and, for publication in the succeeding issue, should reach him not later than the 20th of each month. All BUSINESS communications should be addressed to the Publisher.

EDITORIAL NOTES.

It is our pleasant duty to thank, in the first place, the press and the public of this country for the gratifying reception accorded to the first number of this *Journal* issued under its present Editor; and to thank, in the second place, numerous correspondents of the highest educational rank in India and Burma for their kindly promises and performances in the way of support and encouragement. It is always cheering to find that one's labour is not wholly in vain, and still more so to find that it meets with some degree of public appreciation. We hope to make the *Journal* before long even more useful than it has hitherto been; and we now feel encouraged confidently to look forward to, as we shall certainly always do our best to deserve, an increase in the number, favour, and patronage of our gradually expanding circle of cosmopolitan subscribers.

* * *

As the true Mussalman of every land turns his eyes to Mecca when he prays, even so at this time does the true Educationist of every land turn his eyes to Chicago. For in the White City by the Great Lake there foregathers in the next few days such a meeting of Educationists as has never met together in the world before. The Hon. W. T. Harris, LL.D., United States Commissioner of Education, is to preside at the World's Educational Congress. Later on we hope to devote more attention to this unique assembly. A few particulars regarding it will be found in our present issue under our "General News". India has not been overlooked at the World's Educational Congress. No doubt many invitations to distinguished educationists have been received. Only the following, however, have as yet come to our knowledge, but we shall be glad to hear of any others. Mr. John Adam, M. A., in his recent capacity as Editor of this Journal, has been asked to prepare a paper on "*Educational Journalism in Asia*," and to read it, or send it to be read, at the Congress. Mr. Thomas Denham, M. A., in recognition of his long services as Mr. Adam's predecessor in editing the Journal, has been appointed an Honorary Vice-President of the Department of Educational Publications at the Congress, and has been asked to prepare a paper on "*Educational Journalism in India*." Both papers will be afterwards published in the proceedings of the Congress. And Mr. G. H. Stuart, M.A., Principal, Presidency College, Madras, has been invited to attend the Mathematical portion of the Congress.

* * *

Second in importance only to the World's Educational Congress, ranks, for Anglo-Indian Educationists, the now historic motion of Mr. Paul. Mr. Herbert W. Paul, M. P., the proposer of the famous motion regarding the holding of a simultaneous examination for the Indian Civil Service in England and in India, had already come well to the front in the House during the recent Bengal Jury agitation. Mr. Paul is on the editorial staff of the *Daily News*, the most important of the Liberal organs, represents South Edinburgh in the Imperial Parliament, and has recently been added to the British Committee of the Indian National Congress. He is an excellent scholar, took a First Class at Oxford, where he was President of the Union, is a "New Radical" of the academic type, and one of the "rising hopes" of the advanced

Party. His motion with reference to the Indian Civil Service Examinations was worded as follows:—"To call attention to the system of examination in England for the Civil Service of India; and to move, that all open competitive examinations heretofore held in England alone for appointments to the Civil Services of India shall henceforth be held simultaneously both in India and England, such examinations in both countries being identical in their nature, and all who compete being finally classified in one list according to merit." Mr. Russell, Under Secretary for India, in opposing the motion on behalf of the Government, said that the gift of Government had not been vouchsafed to the particular class of the Indian population who probably best succeed in competitive examinations, and that the best possible education for the Governors of India was imparted under English influences at English schools and colleges, and he therefore deprecated any hasty decision in the matter. But this was not the view taken by the Irish members and Mr. Justin McCarthy, their leader. The Government had erroneously supposed that, right or wrong, they could calculate on the support of the Irish. Great therefore was their surprise when they beheld the Irish leader, followed by twenty-four of his party, go into the wrong division lobby and vote in favour of Mr. Paul's motion. The Irish vote carried the motion by 84 to 76. The final decision on this momentous question is not likely to be given for some months to come, as the Government of India, on receipt from the Secretary of State of the despatch covering Mr. Paul's resolution, has to go through the routine of consulting all the local administrations.

* * *

As Muhammadan education is in such a backward condition in the Madras Presidency, we hail with satisfaction the announcement that the Madras Government has appointed a Board of Muhammadan education with Mr. C. S. Crole, C. S., as President, and Mir Sultan Mohidin as Secretary. The object of the Board is the general improvement of Muhammadan Education in the South, and the first method which they have proposed to themselves of carrying this out is the establishment in Madras of a Muhammadan boarding house. All students who are willing to join the proposed institution, and parents and guardians of children who wish to send their youths to the institution, are requested

to forward applications direct to the Secretary, stating (a) the name of the student or youth, (b) his age, and (c) the name of the guardian or father and his proper address. The Secretary also invites the opinions and suggestions of different Anjuman, and individual gentlemen who are interested in the matter, so that he may place them before the Board for consideration. Correspondents in *The Muhammadan* advocate the immediate raising in grade of the Madrassa-i-Azam, and look forward impatiently to its rivalling the glories of the Northern Institution at Aligarh; but we learn that, for the present, the Board has decided to allow the Madrassa to remain a High School.

* * *

Some time ago the Trustees of Pachaiyappa's Charities applied to the President of the Madras Municipal Commission for the grant of the triangular plot of ground between Pachaiyappa's College Buildings and the Police Station, China Bazaar Road, Madras. The purpose for which the land was sought was the construction of a hostel or home for the Mofussil students of the College. The Municipal President informed the Trustees that the grant applied for was not recommended by the Standing Committee. Neither the President in his reply, nor the Standing Committee in its resolution, was kind enough to state the reason why the request of the Trustees could not be complied with. Evidently they know that their best safety lies in contenting themselves with a bare statement of the conclusion without entering into any explanation of the grounds on which that conclusion is based. Since then, application was made to Government for the grant of either the vacant site opposite the General Hospital or of any land on the Esplanade, the Trustees holding themselves ready to abide by any conditions that Government may impose. We hear that Government has declined to grant either of the sites specified "on any conditions." Seeing that a Students' Home is an object of public utility it is not easy to understand why Government is not prepared to grant the vacant site opposite the General Hospital. In the case of the Esplanade, the Military Department has, we dare say, as usual, stood in the way. It is not right and fitting that a College like Pachaiyappa's, of native origin and under native management, should be dealt with in this fashion by the Municipal Commissioners and the Government. It is to be hoped that the Hon.

Mr. P. Rangayya Nayudu will, in co-operation with his fellow-trustees, carry out his promise of building a Students' Home for the College at no distant date.

* * *

The particulars of the proposed Degree in Education adopted by the Convocation of the University of London and given by us in our present issue, will, we believe, be of interest to many of our readers. It proves the existence in England of a strong feeling, which has now at last found public expression, that teaching is one of the honourable learned professions such as Law or Medicine, which it is the duty of a University to recognize and stamp with its hall-mark. It is also, and perhaps unconsciously, an indirect outcome of the general and growing tendency in English Educational life, to which we owe the introduction of the Bill now before Parliament dealing with Secondary Education—a tendency to systematize and methodize Secondary Education in England, and gradually raise it from its present state of chaos. It is pleasing to reflect that through the zealous and successful efforts of Mr. H. B. Grigg, C.I.E., while Director of Public Instruction in Madras, the status of the Teacher has been already raised in at least one part of India. By the institution of the Degree of Licentiate in Teaching (L. T.), the teacher has obtained recognition from the University of Madras, which thus far at least is in advance of the Universities of England. The name proposed for the new London Degree is "Master of Education". The proposed scheme like the Secondary Education Bill, is likely to undergo considerable change before it is finally sanctioned.

* * *

From the prospectus forwarded to us by Mr. A. E. Duchesne, B.A., Head-Master, Chengalroya Naicker's Commercial and Technical High School, attached to Pachaiyappa's College, Madras, full information may be obtained as to the provision made by himself and his staff of highly-qualified specialists for preparing students for the Madras Upper and Lower Secondary and Technical Examinations. The school year commences in the present month, and admissions close on the 1st August. Pupils are prepared for Technical Group Certificates in Commercial Correspondence, Book-keeping, Letterpress Printing, Surveying and Mechanical Drawing. Evening classes are in process of formation, and day class

pupils may attend them without paying extra fees, on obtaining special permission from the Head-Master, to whom, and, not to the Principal of Pachaiyappa's College, as is persistently done, all enquiries regarding these three Examinations should be addressed.

* * *

In the case of the *Queen v. Barnardo, Re the boy Gossage*, in which the Judges characterized Dr. Barnardo's correspondence as "shifty" and as exhibiting a "lack of candour and straightforwardness," the fact was elicited that "children were never given up by our institutions on religious grounds." We have before us Dr. Barnardo's reply to the decision of the Queen's Bench in the case, published as a supplement to *Night and Day*, of May 1893. For the shiftiness and lack of straightforwardness there seems to have been a great deal of justification in this particular instance. For the refusal to surrender children when claimed by their relatives on religious grounds there seems to us to be no justification whatsoever; and nobody who thinks it right that children should be so surrendered can, until this rule is abolished, conscientiously contribute to the support of Dr. Barnardo's institutions, notwithstanding the free education they impart to the friendless waif and the splendid services they render in the rescue of suffering humanity.

* * *

A word about the English Paraphrases in our Prize Competitions. It is a great mistake to suppose that a poetical paraphrase, *as such*, stands a better chance to win a prize than one in prose. Perhaps the origin of this erroneous idea is traceable to the fact that a poetical paraphrase did actually win the first prize awarded by us for this particular class of competition. Two poetical paraphrases were received for the May competition—one a sonnet, the other in blank verse. Both were faulty in idiom, diction, and metre. Neither paraphrased the thoughts of the original, nor was either worthy to be ranked even in the second class. We should not recommend any one whose mother-tongue is not English to attempt a poetical paraphrase.

* * *

We greatly regret that we are forced to hold over till our next number, correspondence, and many other subjects of educational and literary interest that ought to have been published long ago,

and would have been but for the enormous accumulation of matter in hand which can be only gradually disposed of. For this reason there was no room in the June number to continue the publication of the Technical Examination papers begun in May. We have, however, endeavoured to atone for this by *concluding* their publication in the present number. For the delay in publishing back matter, the Editor offers his apologies to contributors. All contributions that have been accepted will be published in the next few numbers, and we hope for a continuation of this friendly aid. All this points to the necessity of an early enlargement of the Journal to meet its ever-growing importance as a great educational medium of communication for India and Burma.

THE NATIONAL INDIAN ASSOCIATION, 1892.

We have received from Messrs. Archibald Constable and Co. the Annual Report of this Association for the year 1892. The Annual Meeting was held at the Society of Arts, London, on April 1st, with the Earl of Northbrook, G.C.S.I., in the Chair. In supporting the first resolution Dr. Ramasawami Aiyangar referred, in an able speech, to the interest taken in the spread of education by H. H. the Maharajah of Mysore. Mrs. Brandreth, in proposing a resolution relative to the Indian Female Education Fund, made an earnest appeal for increased support for that fund, and stated that the grants already made had proved very useful in the encouragement of local efforts. Two *soirées* were held at the Northbrook Club. We observe that the proceeds of these *soirées* did not amount to one-fifth of the expenditure upon them; but considering their great usefulness in bringing together all the London members of the Association, both English and Indian, the balance was well spent. These social meetings are now generally restricted to members of the Association, except in the case of temporary visitors or new arrivals. Membership means election by the Committee and a subscription of one guinea per annum, or for students, 10s. At one of these *soirées* a Muhammadan student from Baroda, sent to England by H. H. the Gaekwar with a scholarship for the study of music, gave some performances, instrumental and vocal, which attracted much attention. What H. H. the Gaekwar has been doing for music in his own dominions will be seen in our "Indian Notes." Two sons of the Shan Chief of Thibaw were under the charge of the Committee till August last, when they returned to Burma. The younger of these had entered Rugby, and the Committee hopes that the Tsawbwa

will soon allow him to return to continue his studies. Messrs. Archibald Constable and Co. took over the publication of the *Indian Magazine and Review* from January 1892. This arrangement has proved eminently satisfactory to the Council, who gratefully acknowledge that the *Magazine* has been considerably benefited by the new publishers, and that these latter have in various ways promoted its interests and succeeded in bringing it more prominently before the public. The position of the *Magazine* as an advertising medium has also considerably improved. The Society for the Encouragement and Preservation of Indian Art continue to use it as their organ; and the Council hope that all members will endeavour to make it better known among the friends of Indian progress. The Association has endeavoured to encourage by practical sympathy the efforts that are being made by Branches of the Association and by other agencies in aid of Female Education in India. The grants made during the year, with the help of the Carpenter Trustees, amounted to £203 18s. 10d.

The Widows' Home at Baranagar, Calcutta, managed by Mr. and Mrs. Sasipada Banerjee, has continued to receive support from the Education Committee; and, at the close of the year, the Committee started an appeal in the *Times* and in other quarters, asking for contributions towards the expenses of this useful institution. They hope that, by making its existence and its value more widely known in England, many, whose sympathy with the sad position of Hindu widows has in late years been roused, will be glad to give aid towards its maintenance. Several widows, having finished their course of training, have now left the Home to become teachers, or nurses, or have re-married. Thus excellent practical results have already followed from Mr. S. Banerjee's labours. But he has still to face much opposition, and his supporters in Bengal are few. As a pioneer in a good cause he seeks assistance from England, and this he surely should receive, not only on account of the happiness and independence already secured for some of the boarders in the Home, but also because many similar institutions are needed in India, and it may be hoped that his example will induce others to work in the same direction.

Grants have been made in encouragement of the Home Education Classes for ladies who have left school at the usual early age, carried on at Madras, Poona, Coimbatore, and Cuddalore; competitive scholarships have been given in connexion with the Gujarathi and Marathi Schools at Bombay; other scholarships to Madras, Poona, Mysore, and Ahmedabad; and, from the Head Mistresses' Association, to the Hobart School, Madras. Books have also been supplied to libraries, and help, to the Victoria School, Lahore. The sum of £15 was also granted to Mrs.

Brander, Inspectress of the Northern and Central Circles, Madras, to be applied at her discretion in aid of small struggling schools requiring temporary help. The Council notes with especial satisfaction that the Branch Societies lately established in the Madras Presidency—at Cuddalore, Coimbatore, Salem, and quite recently at, Kumbakonam and Rajahmundry—are making progress. At these centres, not only has Home Teaching been appreciated by the people, but social intercourse has extended in a very natural and pleasant manner. It is desirable that in all the Presidencies such Societies should be started at various stations. All the Indian Branch Reports that were ready in time are printed as appendices; but, although there are four from the Madras Presidency, we do not find the Madras Report among the number. Among the new elections to the Council and Committee, we notice the names of Sir Raymond West, G.C.S.I.; Mr. H. B. Grigg, C.I.E., and Mrs. Grigg; and Mr. Archibald Constable. The Council observe with pleasure that many new members, English and Indian, have joined during the year, and that the number of subscribers to the *Magazine* has also increased; and in conclusion, request energetic co-operation from every member of the National Indian Association in England and in India, so that the bonds of union between the two countries which have become so closely related may be strengthened, and that the women and girls of India may more largely share in the educational advantages from which they have been so long debarred.

A UNIVERSITY FOR BURMA.

From a Memorandum by the Executive Committee of the Educational Syndicate, Lower Burma, on the founding of a University for Burma, we learn that early in 1892 the University of Calcutta found it necessary to reduce the number of examination centres for the Entrance Examination in the province of Burma to one. The Director of Public Instruction, seeing that this meant a serious blow to higher education in the province, represented the matter to the University authorities. Their reply was that they regretted their inability to alter the decision they had arrived at. He then laid the matter before the local Government, and meeting with no better success, formally proposed that to meet the serious difficulty, the Educational Syndicate of Burma should take early steps to do what it had all along contemplated as a part of its constitution, namely, to enlarge the sphere of its work and form itself, with such additions as might be found necessary, into the Senate of a Rangoon University. The matter was duly laid before the Executive Committee, who resolved unanimously that the time had come for seriously considering

the question, and that the establishment of a University for the province was necessary in the interests of education in the province. Accordingly a Sub-Committee of the following members:—Rev. Dr. Marks, Rev. Dr. Cushing, Rev. A. F. Moir, Brother Valens, Mr. Chan. Toon, Mr. P. C. Sen, Mr. H. H. Rose, with the Director of Public Instruction as President, was appointed to consider the details. The details of the scheme were accordingly prepared, and have now been agreed upon by the general Body of the Educational Syndicate, and by them transmitted to the Chief Commissioner for Burma with a request that he would lay the question before the Government of India for earnest and favourable consideration.

When the Educational Syndicate was first established, it was even then contemplated that in due course it would become the governing body of a Rangoon University. The time has now come for it to assume its higher position, and for its members, with the necessary addition to their numbers, to form the Senate of the University. As to the functions of the Educational Syndicate, there are some that may be fitly taken over by, and others that are inconsistent with the position and work of, the new University. These latter it is proposed should be taken over by a body of "Civil Service Commissioners," with the Director of Public Instruction as President. This is the practice in Madras, and it has led to efficient work. We earnestly hope that the Government of India will accede to the just and reasonable request of the Educational Syndicate. The reasons for opening a University in Burma are much stronger and more cogent than those for opening any of our present Indian Universities. There is a large and ever increasing demand for higher Education in the Province; and the Educational Syndicate has clearly shown that the scheme they propose will not only stimulate higher Education throughout the whole province, but produce that excellent result without any extra cost to Government.

A NEW WATER-LENS.

By A. L. V. EWBANK, M.A., *Principal, Patna College.*

The Lecturer who has before him a class of perhaps a hundred students—assembled to hear something about geometrical optics—may possess in store less than a dozen ordinary convex glass lenses. These dozen he may desire his assistant to hand round for inspection. He may then indent upon the Chemical Laboratory for a number of florence flasks. A florence flask filled with water, and corked, and held by the long neck as by a handle will serve as a convex lens. The student may look downwards through the water into the print of a book.

Now if the lecturer has a dozen concave glass lenses he cannot so easily supplement their number by a series of concave water lenses. For the ordinary glass vessel may be described as convexo-convex. Let us procure a glass trough with parallel sides. Pour some water in the trough. In the water we may make two florence flasks to stand upright. They have no water inside, but a little mercury poured into each of them will suffice to keep them from rising. Now we may through the water look horizontally at some trees in the outer world. The water between the two flasks has formed itself into a concave water-lens. There is also a concave water-lens between each flask and the nearest vertical glass wall of the trough. Accordingly the trees of the landscape are made smaller and are brought nearer—as is the way with concave lenses. The above experiments have probably been made in every lecture room. But perhaps the following experiment is new to the world of science.

Let us have a florence flask with a long neck and correspondingly long cork which fits air-tight. This cork can be pushed in less or more so that the internal volume admits of a change which is considerable. The vessel has clear water in its globular part and also for some distance up the neck. The remainder of the neck has highly rarefied air. The vessel of course is closed.

When the vessel is held with its neck horizontal, the rarefied air moves to the crest of the globular portion. Now this air is highly rarefied and so its external pressure on the water is very slight. Accordingly the surface where water and air do meet has its shape mainly dependent on the properties of the water. This surface—called sometimes the free surface, though it cannot entirely be *free*—tends not to be a plane but rather to be convex as looked at from above. This convexity is partly due to the fact that the lines of gravitation forces are not parallel but are convergent below the flask, *viz.*, to the centre of gravity of the earth.

But the water itself if it could escape from all external attraction would prefer to have a surface everywhere rounded. A plane surface must in time come to an end and then we should get edges or corners. Now for edges or for corners a genuine fluid has no liking. Hence the upper surface of the water in the flask is *convex* and of course the bottom surface is also convex—as determined by the shape of the vessel. Thus if with the neck horizontal we look down through the flask we have a convex water-lens. The glass of the vessel is here ignored—as far as the optical question is concerned.

The flask held at a very small distance over printed matter behaves as a convex lens. Its water is optically divisible into a plate of water with two thin lenses. All this is well known to most students of optics.

Now place the flask upright and drive in the cork a little further. We need not really change the position of the flask merely to drive in the cork. When the cork is pushed in, the rarefied air chiefly accounts for the loss of volume. The water itself is highly incompressible. The flask—with its neck again held in a horizontal position—will now give us an upper water surface *less* convex than it was before. Accordingly the *power* of the whole thick water lens has been changed and reduced.

A further compression of air will bring us to the case where the surface of the water is really level. The whole lens is still convex by reason of the under surface or bed of the water.

Let us now have the cork so driven in that the air becomes highly condensed. This air will now assert more predominance over the water. The air wishes to collect into a shape nearly spherical. It therefore forces the water to accept a top surface that is *concave* as seen from above the flask. If the air were only slightly condensed the curvature of the top water surface might equal that of the bottom of the flask. Then for a small portion we should have a sort of glass plate. But if the air be sufficiently compressed and so be sufficiently reduced in volume, the sphere which it would nearly make will have a great curvature for its surface. Hence the curvature at the upper surface of the water will *exceed* the curvature at the bottom of the water and so the water lens has become *concave*.

Now in practice we do not really need any rarefied air. We have merely commenced with rarefied air by way of developing the theory. Practically we have only to take any ordinary flask and to procure a good cork. Fill the flask nearly full of water. Then there is in the neck a little air of ordinary density. Now insert the cork. As soon as the cork commences to fit air-tight, the air then left inside must begin to suffer compression, if the cork is driven in any further. Drive the cork in so as perceptibly to reduce the volume of air thus imprisoned.

Then hold the neck horizontal and we shall have made our concave water-lens. This lens is like a cylinder of small transverse section. Its length is the diameter of the globular vessel. Round this cylinder we have a ring of water and this ring gives a convex lens. Thus it is only a small portion of the print of a book that is seen to be made smaller by our lens.

We have called this experiment *new*. But so many clever brains are busy all over the world in studying the laws of Nature that every man who makes a small discovery must admit as highly probable the supposition that somebody else—living somewhere else—has also and independently lighted on that same discovery.

UNIVERSITY OF LONDON.

PROPOSED DEGREE IN EDUCATION.

Scheme of Examination adopted by Convocation.

I. PRINCIPLES.

A. *Science underlying Education.*

1. Physical.—Elements of Human Physiology, with special reference to the bodily characteristics of childhood and youth, and the conditions of the healthy development of body and mind.

2. Mental.—(a) *Psychology*, with special reference to the natural basis of individuality, and to the action of external conditions on the development of mind. (b) *Logic*, including the analysis of the processes which issue in logical thought, and its failures, and the logical methods of the discovery and exposition of knowledge. (c) *Ethics* including the development of good and bad character, the ethical value of the different educational agencies, as well as the consideration of various ideals of conduct and character.

* * * These subjects shall be treated as required for the B.A. and B.Sc. Honours, besides the special developments mentioned above.

B. *Philosophy of Education.*

(1) The Doctrine of Educational Ends. (2) The Political Philosophy of Education, including the educational function of the Family and of the State, and the relation of Education to social stability and progress. (3) The History of Educational Theories and Systems.

II. APPLICATION OF PRINCIPLES.

A. *Methodology of Education.*

(1) Determination of knowledge values, with a view to the selection of subjects of study. (2) Arrangement of these subjects. (3) Methods of exposition appropriate to these subjects. (4) History of educational methods.

B. *Organization of Education.*

(1) The home, the school, and the University: their several functions and mutual relations. (2) The construction of the system of education in its several branches, as physical, intellectual, and moral education.

Whenever we do not know that we are better teachers this year than we were the last, it is time for us either to stop or to take a fresh start.

CLASSICAL EDUCATION.

The desire to get an intimate knowledge of the thought of ancient writers may be taken as the reason for the study of Greek among the Romans. This study was carried to such an extent, that for a long time after the fall of political Greece, the Greek language remained the one used by educated men.

The Latin tongue as the language of the church was the vehicle for carrying Greek wisdom into Western Europe. The more important of the church writings were translated from Greek into Latin and in consequence Latin became the common language of educated people and remained such till the 17th century. As a result we find by far the greater part of the time in the schools of the 16th and subsequent centuries given over to the study of Latin and Greek. Among the schools in Germany at the time of the Reformation fully 95 per cent. of the time was devoted to the study of the classics. The same is true of the schools in England, and in France as exemplified by the curricula of the Jesuit colleges. The devotion to the classics in the schools at the present time is to a great extent a legacy from the curricula of the Renaissance.

Montaigne in France, and Locke in England, were among the first to deprecate this exclusive study of the classics, and to urge the necessity of reform in the course of study. Rousseau's *Emile* next did much to emancipate the schools from the study of words, and insisted on the study of nature.

Since about the middle of the 18th century the tendency among schools has been to still further diminish the time given to classical study. The change has been made gradually. England has been the most conservative in this movement, but even there a good share of the school time at present is devoted to the sciences and modern languages. The tendency in higher education now is toward the development of the mind in whatever way that result can best be brought about, and the modern languages and sciences as well as the classics are recognized as means leading to this end.—O. B. OAKMAN in "*Journal of Education*" (N. E.)

One first requisite is that our children should be brought in contact with each other, and should discover in early life that the accident of birth, of nationality, of language, is never to come in as a derisive element in our national life.

PANJAB UNIVERSITY.

Examiners in Arts for 1893.

ENTRANCE EXAMINATION.

Subjects.	Papers.	Names of Examiners.
English	(a)	Lāla Jiya Rām, M.A., Central Training College, Lahore.
"	(b)	* M. Mohamed Shah Dīn, B.A., Barrister-at-Law, Lahore.
History	(a)	M. C. Mukerji, Esquire, B.A., Mission College, Lahore.
Geography	(b)	C. Golak Nāth, Esquire, Barrister-at-Law, Lahore.
Physical Science	(a)	* Reverend J. H. Orbison, M.D., Mission College, Lahore.
"	(b)	Lāla Rūchi Rām, M.A., Government College, Lahore.
Mathematics	(a)	Golak Nāth Chatterji, Esquire, B.A., Government College, Lahore.
"	(b)	Lāla Harkishan Lal, B.A., Barrister-at-Law, Dera Ismail Khan.
Latin	(a)	M. A. Stein, Esquire, Ph.D., Oriental College, Lahore.
Sanskrit	(a)	Pandit Guruprasada, M.M., Oriental College, Lahore.
"	(b)	Lāla Munshi Lal, M.A., Central Training College, Lahore.
Arabic	(a)	Maulvi Ahmad, Calcutta Madrasa, Calcutta.
"	(b)	S. Amjad Ali, M.A., Muir Central College, Allahabad.
Persian	(a)	Ditto ditto.
"	(b)	Maulvi Umar Dīn, M.A., Government Central Model School, Lahore.
Urdu	(a)	Lāla Umrao Singh, M.A., Government College, Lahore.
"	(b)	Pirzada Muhammad Husain, M.A., District Judge, Mooltan.
Hindi	(a)	Pandit Lakshmi Shankara, M.A., Inspector of Schools, Benares.
Punjabi	(a)	Pandit Dhanu Datta, Government Central Model School, Lahore, or Bhāi Jawāhar Singh, Clerk, Examiner's Office, North-Western Railway, Lahore.
Pashto	(a)	Captain J. R. Dunlop-Smith, M.A., Settlement Collector, Sialkot.
Bengali	(a)	R. B. P. C. Chatterji, M.A., B.L., or Bābu J. C. Bose, M.A., B.L.

INTERMEDIATE EXAMINATION.

English	(a)	* W. R. Macdonald, Esquire, M.A., Kodermah, Hazaribagh.
"	(b)	Kirthee Singh, Esquire, Aitchison Chiefs' College, Lahore.
Philosophy (Logic and Psychology).	(a)	H. Stephens, Esquire, M.A., Duff College and Free Church of Scotland Institution, Calcutta.
" (Political Economy).	(b)	E. D. MacLagan, Esquire, Colonization Officer, Gujranwāla.

* Required also to set an oral paper.

Subjects.	Papers.	Names of Examiners.
History ...	(a)	{ M. W. Fenton, Esquire, C.S., Senior Secretary to Financial Commissioner, Panjab.
Mathematics...	(b)	
" ...	(a)	Lala Ganga Ram, R.E., M.I.C.E., Executive Engineer, Lahore.
" ...	(b)	T. C. Lewis, Esquire, M.A., Inspector of Schools, Lahore.
Physics ...	(a)	W. H. Wood, Esquire, Principal, La Martinière College, Calcutta.
Chemistry ...	(b)	* Dr. Tarleton Young, Civil Surgeon, Murree.
Botany ...	(a)	Dr. W. P. Dickson, Superintendent, Central Jail, Lahore.
" ...	(b)	* Dr. C. C. Caleb, Medical College, Lahore.
Zoology ...	(a)	{ Professor of Zoology, Medical College, Lahore.
" ...	(b)	
Latin ...	(a)	{ M. A. Stein, Esquire, Ph. D., Oriental College, Lahore.
" ...	(b)	{
Sanskrit ...	(a)	Pandit Hari Kishan Kaul, M.A., Assistant Commissioner, Ropar.
" ...	(b)	S. R. Bhandarkar, M.A., Assistant Registrar, University, Bombay.
Persian ...	(a)	M. Abul Khair Md. Siddiq, M.A., Dacca Mad-rassa, Dacca.
" ...	(b)	Major Henry Saddler, Political Superintendent, Jhalawar State, Rájputána.
Arabic... ..	(a)	Maulvi Ahmad, Calcutta Madrassa, Calcutta.
" ...	(b)	S. Amjad Ali, M.A., Muir Central College, Allahabad.

BACHELOR OF ARTS EXAMINATION.

English ...	(a)	* Reverend C. A. Dobson, St. Mary's Scholasticate, Kurseong, Darjeeling.
" ...	(b)	M. Macmillan, Esquire, M.A., Elphinstone College, Bombay.
Philosophy (Psychology) ...	(a)	Dr. P. K. Ray, Presidency College, Calcutta.
Philosophy (Moral Science) ...	(b)	Reverend H. U. Weitbrecht, Ph.D., Batála.
Philosophy (Logic) ..	(a)	M. Macmillan, Esquire, M.A., Elphinstone College, Bombay.
History of England and India ...	(b)	Rev. A. B. Wann, M.A., General Assembly's Institute, Calcutta.
General History ...	(a)	A. H. Gunion, Esquire, Residency College, Indore.
Political Economy ...	(b)	C. A. Andrew, Esquire, Agra College, Agra.
Mathematics Course A	(a)	T. C. Lewis, Esquire, M.A., Inspector of Schools, Lahore.
	(b)	J. Eliot, Esquire, M.A., Meteorological Department, Calcutta.
	(a)	T. C. Lewis, Esquire, M.A., Inspector of Schools, Lahore.
" Course B	(b)	J. Eliot, Esquire, M.A., Meteorological Department, Calcutta.
	(a)	* Dr. Tarleton Young, Civil Surgeon, Murree.
Physics ...	(b)	W. H. Wood, Esquire, Principal, La Martinière College, Calcutta.
Chemistry ...	(a)	* Dr. W. P. Dickson, Superintendent, Central Jail, Lahore.
Botany ...	(b)	{ Dr. C. C. Caleb, Medical College, Lahore.
Zoology ...	(a)	

* Required also to set an oral paper.

Subjects.	Papers.	Names of Examiners.
Zoology ...	(b)	* Professor of Zoology, Medical College, Lahore.
Latin ...	(a)	{ Reverend S. S. Allnutt, M.A., St. Stephen's College, Delhi.
Sanskrit ...	(b)	
" ...	(a)	G. Thibaut, Esquire, Ph.D., Muir Central College, Allahabad.
" ...	(b)	S. R. Bhandarkar, M.A., Assistant Registrar, University, Bombay.
Arabic ...	(a)	Maulvi Shams-ul-Huda, M.A., 23, Ripon Street, Calcutta.
" ...	(b)	Major Henry Saddler, Political Superintendent, Jhalawar State, Rájputána.
Persian ...	(a)	Maulvi Abul Khair Muhammad Siddiq, M.A., Dacca Madrassa, Dacca.
" ...	(b)	Major Henry Saddler, Political Superintendent, Jhalawar State, Rájputána.

MASTER OF ARTS EXAMINATION.

English ...	First 3 papers	Reverend C. A. Dobson, M.A., St. Mary's Scholasticate, Kurseong, Darjeeling.
" ...	4th and 5th papers	F. L. Thomson, Esquire, Professor, Agra College, Agra.
" ...	6th paper	Reverend J. C. R. Ewing, D.D. Principal Mission College, Lahore.
Philosophy ...	First 3 papers	M. Macmillan, Esquire, M.A., Professor, Elphinstone College, Bombay.
" ...	Last 3 papers	H. Stephens, Esquire, M.A., Duff College, and Free Church of Scotland Institution, Calcutta.
History ...	First 3 papers	W. Bell, Esquire, M.A., Principal Government College, Lahore.
" ...	Last 3 papers	C. A. Andrew, Esquire, Agra College, Agra.
Chemistry ...	First 3 papers	W. H. Wood, Esquire, Principal La Martinière College, Calcutta.
" ...	Last 3 papers	E. F. Mondy, Esquire, Dacca College, Dacca.
Physics ...	First 3 papers	J. G. Gilbertson, Esquire, M.A., Mission College, Lahore.
" ...	Last 3 papers	Dr. Tarleton Young, Civil Surgeon, Murree.
Mathematics ...	First 3 papers	T. C. Lewis, Esquire, M.A., Inspector of Schools, Lahore.
" ...	Last 3 papers	J. Eliot, Esquire, M.A., Meteorological Department, Calcutta.
Sanskrit ...	First 3 papers	M. M. Pt. Mahesh Chandra Nyayaratna, Sanskrit College, Calcutta.
" ...	Last 3 papers	G. Thibaut, Esquire, Ph.D., Muir Central College, Allahabad.
Arabic... ..	First 3 papers	Maulvi Abul Khair Muhammad Siddiq, M.A., Dacca Madrassa, Dacca.
" ...	Last 3 papers	Major Henry Saddler, Political Superintendent, Jhalawar State, Rájputána.

* Required also to set an oral paper.

Employ your time by improving yourself by other men's writings, so you shall come easily by what others have laboured hard for. Prefer knowledge to wealth, for the one is perpetual, the other transitory. —Socrates.

OUR PRIZE COMPETITIONS.

ENGLISH PARAPHRASE.

Only eight paraphrases of "Crossing the Bar" satisfied all our conditions. As no competitor at all has succeeded in reproducing all the subtle spiritual ideas contained in this wonderful poem, and as only two, Messrs. A. L. Pinto and C. Kuppasawmi, in that order of merit, deserve a place even in second class for moderately good prose paraphrases, no prize is awarded this time. We offer the poem for fresh competition, and hope the paraphrases sent in next time will be more numerous and of a higher literary order. For the poem, see May Journal.

(Conditions as in March Journal, except that these new Paraphrases will be accepted till and on 20th August)

INDIAN NOTES.

Dr. D. Duncan, Director of Public Instruction, Madras, proceeds at the end of next month to England on one year's furlough.

We regret to have to record the death of General Black, Governor of the Aitchison Chiefs' College, Lahore.

Dr. Oppert is now in Simla, whence he contemplates a journey into Kulu, to prosecute his philological and ethnological enquiries.

A new Institution entitled "The Lahore Academy," imparting instruction from the Upper Primary to the F.A. Class, has recently been started in Lahore.

Mr. J. Cook, M.A., Principal, Central College, Bangalore, is expected back in Bangalore from his furlough in Europe about the middle of this month.

The Eurasian and Anglo-Indian Association has appointed Miss Nancy Austin, who has passed the Higher Examination for Women, to the School at the Whitefield Colony.

Mr. W. Meston, M.A., Aberdeen, has been appointed Professor of English at the Madras Christian College. He is expected in Madras in the course of the present month.

A meeting of the Fellows of the University of Madras is to be held during the current month for the purpose of electing a candidate to represent the University on the Madras Legislative Council.

In token of appreciation of excellent work done on behalf of the cause of education in India, the Maharajah of Bhamagar has received at the hands of the Cambridge University the honorary degree of LL.D.

The 500th anniversary of the foundation of Winchester College is to be held in England on the 25th instant. It is proposed to celebrate the Quingentenary in India by a Wykehamist Dinner at Simla on that date.

The *Bengalee* announces that an M.A. class for the teaching of Physical Science has just been opened in connexion with the Ripon College. Babu Ramendra Sunder Trivedi, M.A., is in charge of the class.

Mr. R. G. Oxenham, M.A., Acting Director of Public Instruction, Bombay, has just been appointed an additional Member of the Council of the Governor of Bombay for the purpose of making Laws and Regulations.

Mr. E. W. Middlemast, M.A., Professor of Mathematics, Engineering College, Madras, has returned with restored health from six months' leave on medical certificate in Europe, and has resumed charge of his Professorship.

The *Times*, in a leading article on the late cricket matches, says that Mr. Ranjit Sinjhi's batting and fielding are both excellent, and rejoices to find an Indian so distinguishing himself against the Australian eleven in the English National game.

The *Western Star* learns that the new Professor of English and Science who is coming out as an Assistant to Mr. Cruickshank of the Ernakulam College is Mr. Robert Lindsay Roddon. His salary will be Rs. 300 a month, plus Rs. 25 for house rent.

We regret to have to report the death of Dr. Gundert, a literary man well known on the West Coast, and author of a Standard Malayalam and English Dictionary, as well as Grammar. He was an Inspector of Schools in Malabar, and a thorough master of Malayalam.

Mr. C. S. Vaughan, B.A., of McGill University, Montreal, has been appointed Principal of the American Mission High School, Madura. Mr. and Mrs. Vaughan are expected in Madura after September. In the meantime the Rev. E. P. Holton will continue to teach in the school.

Dr. R. G. Bhandarkar, M.A., Ph.D., C.I.E., has retired from the chair of Sanskrit, Deccan College, after a zealous and unflinching service of more than thirty years. Dr. Bhandarkar's name is intimately associated with the revival of Sanskrit studies in the Bombay Presidency.

The Panjab Text-book Committee has, says the *The National Guardian*, pronounced against Sir Lepel Griffin's *Ranjit Singh* one of the "Rulers of India" series, as a text-book for schools in the Panjab. On the other hand Sir Charles Aitchison's *Lord Lawrence* has been adopted.

The next Competitive Examination for admission to the Madras Provincial Civil Service will be held in the early part of January, 1894; and the Director of Public Instruction has been directed to address Government on the subject by the 1st September next, so that sufficient notice may be given to intending candidates.

Three young Indian ladies, Misses Sasibala Bandyopadhyay, Ellen Chandra, and Surabala Ghosh, all sent up by the Bethune College, have recently passed the B. A. Degree Examination of the Calcutta University. This is very creditable considering that only 20 per cent. passed in the literary part of the examination.

The many friends in India of the Rev. G. Milne Rae, M.A., will be pleased to learn that the Aberdeen University has conferred upon him the degree of Doctor of Divinity. The same University has conferred a similar degree on the Rev. J. F. W. Youngson, B.D., of the Church of Scotland Mission in the Panjab.

As the answers from Chicacole, Mangalore, Vizagapatam, and Vizianagaram to the papers set in Geography and History at the late Madras Upper Secondary Examination, have been stolen, a re-examination in these subjects at the above-mentioned centres is to be held at a date to be subsequently notified.

The Special Committee for the management of the School of Modern Oriental Studies at the Imperial Institute, London, consists of Sir Frederick Abel, Sir Edward Bradford, Prof. T. W. Rhys Davids, Prof.

R. K. Douglas, Sir Frederick Goldsmid, Sir Philip Magnus, Prof. Max Müller, Rev. Henry Wace, Major C. M. Watson, Sir Charles Wilson, and Sir George Young.

The following Indian students were called to the Bar on April 26th; *Lincoln's Inn*: Kamalanabha Rama Chandra, University of Madras. *Gray's Inn*: Hira Lal Kumar, Bengal; Nowroji Merwanji Tarachand, Grant Medical College, Bombay, has been admitted a Licentiate of the Royal College of Physicians. Mr. K. Rama Chandra is an old student of Pachaiyappa's College, Madras, and has just returned from England with a view to practising at the Madras Bar.

With reference to the holding of the Indian Civil Service Examination simultaneously in England and in this country, it will be interesting to Indian students to learn that a College has been opened at Queen's Road, Peckham, London, for the special benefit of Indian candidates for the Civil Service Examination. For those to whom the voyage to England is a bar to competing, the system of teaching by correspondence has been inaugurated. By this system, lessons are given weekly through the post at so much per subject.

The Madras Director of Public Instruction, in reviewing the Tabular Inspection Report on the Native College, Madura, for the year 1892-93, observes that all the teachers but one were professionally qualified, and that the results of the public examinations of 1891 might have been better, considering the staff. He recommends the graduate assistants who are all young men to qualify for the L. T. Diploma, and notes with approval the formation of a debating society and the fact that the College was very nearly self-supporting from fees and grants during the year under review.

The Bengal Government has, says *Reis and Rayyet*, prohibited students in Government and Aided schools, on pain of expulsion, from purchasing keys to text books published by an individual named Ahala-kanta Sen. The Universities and the Directors of Public Instruction in the various provinces have from time to time recommended or prescribed the use of certain text books in schools, but we have not till now heard of students being prohibited from purchasing and reading any books they like. The ground of the prohibition is stated to be that the "keys" contain seditious passages.

Some orthodox contemporaries are disturbed because a native lady in Calcutta, who has passed the Entrance Examination of the Calcutta

University, has applied for admission into the Subpur Engineering College. They fear that if the lady's request is granted, real womanhood will vanish and we shall all be in a mess! But we do not think that such terrible times are in store for the country merely because one lady wants to be an engineer. There is little chance of women in any large numbers elbowing out males from occupations which are now the monopoly of the latter; and it is just as well that an opportunity should be given to any lady who thinks she can prove a good engineer.—
Subodha Patrika.

Mr. G. H. Stuart, M.A., Principal of the Madras Presidency College, has been invited by the Executive of the Chicago Exhibition to attend a Congress of Mathematicians. Mr. Stuart was fifth Wrangler at the Cambridge Mathematical Tripos in 1874, and subsequently Smith's Prizeman and a Fellow. It fills one with wonder to find Government appoint a Smith's Prizeman to teach History, Metaphysics, English—anything at all save Mathematics; whereas the Smith's Prizes are awarded to the candidates who present the Essays of greatest merit on any subject in Mathematics or Natural Philosophy. Departmental necessities are responsible for a great deal in India, but even these have not been able to prevent Mr. Stuart's mathematical abilities from being recognized in other lands.

In his review of the Tabular Inspection Report on the Municipal College, Salem, for 1892-93, the Director of Public Instruction, Madras, notes that a new Headmaster has been appointed. The work of the staff has been characterized as generally indifferent, but it is hoped that, under the supervision of Mr. Shutie, the new Headmaster, the College will soon emerge from its temporary depression and maintain the position it had held for years. There were but 11 Muhammadan pupils in the institution. The gymnastic apparatus in the college should be improved in the manner suggested by the Inspector. The results of the F. A. and Matriculation Examinations are regarded as pretty fair, and the financial condition of the institution as satisfactory, over 84 per cent. of the total cost having been met from fees and grants.

The following extract, culled from a Northern paper, shows how easily some Indian students aspiring even to the dignity of B.A. may be gulled. "During the F. A. and B. A. Examination at Bankipore, there appeared in the town an astrologer who claimed to possess the mysterious power of making students pass the examinations. He made a parade of his extraordinary power to the circle of students. The result was that

a large number of students began to attend him. His fee for passing was Rs. 300. The amount, he said, should be deposited with a respectable person whom he would nominate. His second class fee was Rs. 29, which he wanted in cash. He did not allow any student to read a text-book, after he had enrolled his name on the list and paid the fee. By the time of the examination he had amassed Rs. 502 in cash. During the days of the examination, he was seen in the College compound applying ashes (*Vibhuti*) on the forehead of his 'initiates.' The other day he was seen in a street in Bankipore, surrounded by his unsuccessful victims."

Education in Baroda is making sure and steady progress. Considering that it was only in 1871 that education in this state was placed on a substantial basis, it is highly gratifying to find that there are now 1,086 schools in Baroda with a school-going population of 71,796. But the great point is that the state has now seven music schools, attended by 604 students, in which vocal and instrumental music are taught; and that there is also a class in which *dancing* is taught. This reform in the educational policy of the state is full of the most hopeful significance, and comes as a pleasant surprise just at a time when public opinion in India is agitated by the question of ostracizing the nautch-girl, and rescuing the music at Hindu solemnities, both religious and social, from the selfish monopoly of degraded women. A bright future is in store for Baroda, when the divine airs of an older time shall flow from the lips and echo to the flying fingers of the pure daughters of their own homes. Baroda leads the way in Reform, and sets a noble example which we hope soon to see followed all over India.

In his review of the Report on the Maharajah's College, Vizianagaram, for 1892-93, the Madras Director urges the necessity of higher professional qualifications on the part of the staff, and recommends the graduate teachers to work for the L. T. Degree as a means of raising the college in the estimation of the public. He notes that there was a very slight increase in strength, but considerable fluctuation in the attendance at the college. The total strength of the institution was 465. Considerable additions were made to the library since the previous inspection. The opening of a reading room and the proposal to provide the institution with a good consulting library are noted with pleasure. The results of the various public examinations of 1891 were individually very fair. In consequence of a large outlay on the library and reading room and of the employment of a separate clerical establishment the expenditure during 1891-92 shows an increase of nearly Rs. 1,600. An

annual report from the Principal on the working of the college classes during each official year may, as in the case of the other first-grade colleges, take the place of a tabular report on them.

In reviewing the Tabular Inspection Reports on the College and School Departments of the S. P. G. College, Trichinopoly, for 1892-93, the Madras Director points out the necessity of higher professional qualifications on the part of the staff. The College classes received on the whole a slight accession to their numbers. Of the total attendance of 711 pupils in the College and School departments only 20 were Muhammadans, and seven artisans. A library had been formed for the High School. The requisite science apparatus should be supplied to the High School at an early date. The inter-school rules and the rulings of the Director regarding leaving certificates should be strictly complied with in future. The steps taken by the Manager to improve the accommodation for the College classes are noted with satisfaction. The institution disclosed several defects at inspection. Its financial condition continued to be satisfactory. In the College department only 7 per cent. of the total cost for 1891-92 was met by the mission, whilst the School department was fully self-supporting, the large outlay on new buildings being excluded.

Mr. Herbert Spencer writes :—"The changed characters of citizens should display themselves in changed actions. To expect that the society will evolve further while they remain passive, is to expect that it will evolve further without cause. Each man in whom dissatisfaction is aroused by institutions which have survived from a less civilized past, or whose sympathies make certain evils repugnant to him, must regard his feelings thus excited as units in the aggregate of forces by which progress is to be brought about; and is called on to expend his feelings in appropriate deeds." Here is a sentiment that should be enshrined in the bosom and reflected in the life of every educated Hindu who has at heart the social and political regeneration of his country,—but especially of those of them who, being blessed with a higher English education, have a knowledge of the advanced civilization that exists in Western lands, and a desire that their own country should not lag in the rear, but should march in the van, of the nations. In the rallying of such men round the standard of Social Reform lies India's only hope. "We needs must love the highest when we see it."

A large meeting of graduates, under-graduates and others was held at Bhaunagar in May to consider the desirability of introducing reforms in the present system of examinations of the Bombay University.

Mr. M. H. Mehta presided. The following resolutions were adopted :

- (1) That the enhancement of fees in different University examinations be not made, and that the Matriculation examination be held twice a year to meet the deficit caused by the withdrawal of Government grant.
- (2) That the marks in each question be given on the receipt of a moderate fee, or failing that, that the old system of giving marks be restored.
- (3) That a plucked candidate be not compelled to be examined in those subjects which he has already passed in at the same examination, with such modifications and restrictions as the Syndicate may think proper.
- (4) That the system of oral examination be abolished or failing that that the mofussil students be examined first.
- (5) That in addition to the correcting of misprints alone by the examiners, ambiguities occurring in questions should be cleared up, and the intended meaning explained to the student upon application.
- (6) That a Committee consisting of several gentlemen be appointed.

The Earl of Northbrook and the Committee of the Northbrook Society, seeing that the new Imperial Institute in London would afford special facilities and conveniences to young men from India, were led to suggest that terms might be agreed upon between them and the council of the Institute by which the Society and the Northbrook Club connected therewith might become affiliated to the Institute. Negotiations in this direction have resulted in the conclusion of a satisfactory arrangement, and the Imperial Institute has, from the beginning of the year, been the home of the Northbrook Society. The main object of the Northbrook Society is to provide a system of guardianship for Indian gentlemen of good family or position who may be sent to England for education. This is also one of the functions of the National Indian Association. The want of such a system has been much felt by parents in India; the difficulty being one that could be surmounted only by those who happened to have friends in England willing to undertake what must always be an onerous responsibility. A remedy for this want is the more necessary, as Government has adopted the policy of employing natives of India more largely in the higher departments of the Administration. The society desires not only to assist young Indian gentlemen to qualify themselves for the career thus opened for them, but, by encouraging parents to educate their sons in England, to aid the Government in carrying out and extending their present policy.

With reference to our late Symposium—"At what stage should English be introduced into Indian Schools"—the following facts, for which we are indebted to a reprint from the *Hindu*, will prove of interest to our readers as showing the divergent character of the prac-

tice at present prevailing in different parts of India. "(In the Central Provinces) the study of English is commenced in the Middle School, and history is taught in the Vernacular in the Middle School classes, the Upper Primary Examination in the Vernacular being made the test for admission both into a Vernacular Middle School as well as the first English class of an Anglo-Vernacular Middle School. In Bombay the Vernacular has been the sole medium of instruction in all Middle Schools. In Middle English Schools in the North-Western Provinces all instruction in the lower classes is conveyed through the Vernacular. In the Panjab the Vernacular is the medium of instruction in Middle English Schools." We may add that, in Mysore, Primary Education to now entirely Vernacular, and that the English course up to Matriculation extends over seven years, four in the Middle School, and three in the High School. The *Hindu* concludes its survey of India by remarking: "Madras appears to be the only part of India in which English is taught as a necessary or optional part of the course in primary schools. Middle Vernacular Schools are a part of the recognized system of instruction in Madras, though nearly all of them include English in their course. In the higher classes of Middle Schools, English is the medium of instruction."

A meeting of the Heads of Colleges and Schools in Calcutta, both aided and independent, was recently held at the Albert Hall to protest against the new affiliation rules framed by the University. The following resolution was unanimously adopted:—That this meeting of the heads of colleges and schools desires to enter its firm and respectful protest against the new rules for the affiliation of colleges and the recognition of schools on the following, among other, grounds:—That it is not the proper business of an examining body like the Calcutta University to regulate the internal management of the colleges and schools. That the rules will hinder the growth of new schools and colleges by making their position insecure. That for the enforcement of these rules, a procedure will be necessary, which will be inquisitorial in its character, and may lead to grave abuses. That the grounds upon which the Syndicate may affiliate or disaffiliate a college, and recognize or refuse to recognize a school, have not been specifically stated in the rules. That the rules, being retrospective in their effect, involve a violation of the understanding with the colleges and schools which are already affiliated to, or recognized by, the University. Their affiliation was permanent, and was liable to be cancelled for misconduct only; but under the new rules the affiliation has been rendered temporary. That a hard-and-fast rule restricting the number of boys in each class will be

attended with grave practical inconveniences, and by reducing income and adding to expenditure, will deal a heavy blow at the interests of the aided and independent colleges and schools. That a Sub-Committee, consisting of the following gentlemen, be appointed to draft a Memorial for submission to the Syndicate, and to take such other action as may be deemed necessary to give effect to the above Resolution:—Rev. H. Whitehead, M.A., Bishop's College; Rev. J. P. Ashton, M.A., L. M. S. Institution, Bhownipore; Babu K. B. Sen, M.A., Albert College; Mr. N. N. Ghose, Metropolitan Institution; and the Hon. S. N. Banerji Ripon College.

A general meeting of the Educational Syndicate, Burma, was recently held to consider the University question. The President, Mr. E. Hosking, C.S., Judicial Commissioner of Lower Burma, in opening the discussion, observed that the benefits of a local University had been too much ignored by the objectors to the scheme, that it was an incontestable proposition that a local university carried with it special advantages; that as to funds there were sufficient for some time to come, that examiners could, if necessary, be found in India; and that as to the objection that the standards would be lowered, it was a contingency he regarded as quite probable. The standard of matriculation in India was lower than in England. Why then should not the standard in Burma be lower than in India? Mr. J. van Someren Pope, M.A., Director of Public Instruction, then moved the following Resolution:—"That in the opinion of the Syndicate the time has arrived for the establishment of a University for Burma, and that the scheme of the Executive Committee be forwarded to the local Government for transmission to India." The motion was seconded by Dr. Marks and Dr. Cushing. The latter observed that Mr. Rose's scheme of establishing a teaching university was beautiful theoretically, but utterly impracticable in Burma, that the constituencies he and Dr. Marks represented would not tolerate a teaching university at Rangoon College to which the missionary colleges would be attached merely as hostels, and that they felt the necessity of keeping their institutions under religious influences, and would not allow the boys to go into hostels. Mr. Rose, Principal, Rangoon College, moved the following amendment:—"That whereas there is no immediate necessity for establishing a University, and no reason why a university if established should be on the Indian model, steps be taken to ascertain whether a scheme for a teaching university be not feasible, and more fitted to meet the requirements of the province." The original Resolution was carried by a majority of two. After some discussion it was resolved to submit the scheme to the local Government with all comments on it for transmission to the Government of India.

LITERARY NOTES.

An official Directory of the Bombay Educational Department for 1892-93 is issued with the June number of *The Bombay Educational Record*.

The May number of *The Punjab Magazine* contains a long, able, and interesting lecture on Tennyson delivered last February at the Government College, Lahore.

"I taught, partly because I heard it was a good route to the presidency, and partly because I needed money. It was fortunate that I did not need much."—*Bill Nye*.

Many a good book has been written in prison. Cervantes, Bunyan, Defoe, Lovelace, Tasso, Beranger, Raleigh, George Wither, and James Montgomery all continued their literary labours while suffering from a curtailment of liberty.

Mehr Munee is the name of an English poem, something after the style of *Lalla Rookh*, written by a little Brahmin girl of fourteen, and it must be recognized as a wonderful production for one so young, to whom English is a foreign language.

Messrs. Longmans & Co., expect to have ready by next September an *Advanced Physiology* by J. Thornton, M.A., and announce for the autumn a new one volume novel by Mr. H. Rider Haggard, entitled *Montezuma's Daughter*, with illustrations by Mr. Greiffenhagen.

The *School Journal* (New York and Chicago) will shortly issue a great "Columbian number." Education during the past 400 years will be discussed, and the results of the development of education as exhibited at the World's Fair will be treated by able writers and appropriately illustrated.

The *Telugu Journal of Education* for June treats of "The teaching of Geography" and "The duties of the Educated." Besides its "News and Notes," it also gives the new Notification regarding the Lower Secondary Examination, and the questions set to the Primary Grade at the recent Written Examination for Teachers' Certificates.

We acknowledge with thanks the receipt of a particularly able and interesting Lecture on "Mr. Gladstone" delivered by the Rev.

J. Lazarus, B.A. It has been reprinted at the Albinion Press, Madras, from the columns of the "Christian Patriot," and contains a generous and appreciative estimate of the greatest statesman of modern times.

All who are interested in the Symposium in our May number—"At what stage should English be introduced into Indian Schools"?—should procure from the Manager of *The Hindu* a copy of an interesting little pamphlet of ten pages entitled "*The Study of English in Primary and Secondary Schools*," reprinted at the National Press from the *Hindu* newspaper. An extract from it appears under our "Indian Notes."

The May number of the *Johns Hopkins University Circulars* contains much interesting matter. First and foremost, from our standpoint, ranks a series of able lectures on "the Philosophy of Education," delivered at the University last January by the Hon. W. T. Harris, LL.D., Commissioner of Education, and Chairman of the World's Educational Congress to be held this month at Chicago. We hope to print these lectures in an early issue for the benefit of our readers.

We have received from Messrs. G. P. Putnam's Sons *The Literary News* for April 1893, and *Notes on New Books*, Vol. III., No. 1. The volumes of most interest in these lists to Indian readers are (1) *Napoleon* ("Heroes of the Nations" Series) by W. O'Connor Morris (5s.); (2) *Louis Agassiz* ("Leaders of Science") by C. F. Holder (5s.); and (3) *Studies of Travel in Greece and Italy* by the late Professor Freeman (about 3s.). Other interesting books are mentioned, but being presumably intended for sale mainly in the United States rather than in the British Empire, their prices are given only in American money.

The May number of *The Viveka Chintamani*, a monthly Tamil Magazine and Review, contains among other contributions an article by K. G. Sesha Aiyar, B.A., B.L., entitled "The Chief Forces of Nature"; the second chapter of "The City of Golden Mines" by R. Chelva Pillai, B.A.; "Oriental Music"—a Review, by M. S. Ramaswami Aiyar; and "Living beyond one's Means" by K. Jayaram Aiyar, B.A. This is the first number of the second volume of this vigorous young monthly; and as its aim is to diffuse general knowledge on useful subjects among the masses, we hope that the appeal for support prefixed to the number will secure its object.

From Lahore we have received the ninth and tenth numbers of *The Middle School Magazine*, a new fortnightly publication that first saw the light at the beginning of the current year, and is printed partly in Eng.

lish and partly in the Vernacular. The former number began and the latter concludes the Hon. M. Bhashyam Aiyangar's address delivered at the Convocation of the Madras University. The leading feature of the *Magazine*, to judge by the copies before us, is that it prints questions set at the local Middle School Examinations, and, for the benefit of students preparing for the Examination, likewise prints the answers. The latter we should observe, are not free from error. It would be advisable to have the answers to the English papers revised by an Englishman before publication.

Mr. Edward B. Warman of Chicago writes to the Editor of the *New England Journal of Education*:—It may be of interest to your readers to know something of the important changes that were made in the revision of the *Webster's Unabridged Dictionary* to what is now known as the *Webster's International*. There are 296 words that have undergone a complete change in pronunciation; 349 words formerly having but one pronunciation, now having two; 72 words formerly having two pronunciations, now having but one; 50 words having two pronunciations, the preference being transposed; i.e., the preference in the *Webster's* now takes second place in the *Webster's International*. I find the dictionary one of the most interesting as well as instructive of books. I say this after having carefully examined every word in *Worcester's Unabridged*, *Webster's Unabridged*, and the *Webster's International*. This duty and pleasure I have performed twice; besides spending nine years of earnest work on nine pages of *Webster's Unabridged*,—the nine pages of notes on the vowels, consonants, diphthongs, and so-called triphthongs.

Messrs. Macmillan & Co. announce among the new books published by them in May:—1. *Evolution and Ethics* by the Right Hon. T. H. Huxley, LL.D., F.R.S., being the Romanes Lecture delivered at Oxford May 18th 1893 (2s.), described by the *Oxford Magazine* as "one of the most brilliant gems in the prose literature of the nineteenth century:" 2. *Macaulay's Essay on Warren Hastings* with Introduction and Notes by K. Deighton (2s. 6d.): 3. *Poems by Two Brothers*, edited by Hallam, Lord Tennyson—a reprint of the first literary venture of the late Laureate and his brother—(6s.): and 4. *William George Ward and the Catholic Revival* by Wilfrid Ward—a work described by the *Times* as being "as rich as its predecessor (*William George Ward and the Oxford Movement*) in pointed anecdotes and mots" (14s.). Among the new May editions published by the same firm we notice: 1. The first volume, thoroughly revised by the author, of *Bryce's American Commonwealth* (12s. 6d.): 2. *Freeman's History of the Federal Government in Greece and*

Italy, edited by J. B. Bury, M.A., F.T.C.D. (12s. 6d.): 3. The completion, in ten volumes, of the only absolutely complete edition, at present published, of the late Poet Laureate's works (£5 5s.). Among the books reduced in price by the firm we notice:—1. Frederic Harrison's *Choice of Books and other Literary Pieces*, and 2. Mr Hutton's *Literary Essays*—both works reduced from 6s. to 5s.

The Juno number received by us of *The Harvest Field*, a Missionary Magazine published in Madras, advertises a new book entitled *Exposure of Popery* by the Rev. J. F. Ullmann of Dehra Dun, and contains a whole page of advertisements headed "Remarkable Revelations of Rom-ish Doctrines, Confessionals, Convents, &c." The spiteful termination is italicized by us. We are greatly surprised to find such blatant bigotry rampant in any corner of the earth at the close of the nineteenth century, but more especially in a non-Christian land like India which good Missionaries of all denominations are trying to win to Christ. Mr. Ullmann's fanatical work serves no good or Christian purpose. We observe that Christian Journals, in their notice of the book, strongly dissent from the pitiable prejudice and rabid ravings of this minister of the Gospel. Clergymen like the Rev. Mr. Ullmann, even if they have little or no missionary work of their own to do, might at least refrain from placing obstacles in the way of genuine workers. Well may the Hindu exclaim "See how these Christians love one another!" Catholic missionaries in this country are far too busy to notice stupid attacks of this kind. By their poverty, their missionary zeal, their earnest labour, and their self-sacrificing spirit, the Catholic clergy of India command more respect among the natives of the country than does a clergyman of the aggressive type of the Rev. Mr. Ullmann, who might with advantage take a leaf from their book.

Old fallacies die hard. It was for a long time by the public and the Press, and is still by a few obstinate individuals, persistently maintained that the fall of the rupee was good for Indian trade. To those who are still of this mind we strongly recommend the purchase and perusal of a masterly little pamphlet of some 50 pages by Mr. A. Ewbank, M.A., Principal, Patna College, entitled *Side-Lights on Currency*, and consisting of a series of articles reprinted from "*Indian Engineering*." Mr. Ewbank writes:—"In the columns of *Indian Engineering* the doctrine that a low exchange means good to the native cultivator was first openly challenged and disproved. The article in question was entitled *The Rupee and its Customers*. Soon after that article appeared, its influence silently passed through various channels; and in newspaper paragraphs and in public

utterances the former doctrine was disavowed. Nevertheless the old doctrine lingered—as other doctrines have of old time been wont to linger—in quiet valleys removed from the world's highway." In more articles than one the writer has conclusively shewn that the falling of the rupee means loss to the Indian peasant and impoverishment to India at large. He urges three concurrent reasons for checking the depreciation of silver. "One reason is to benefit those Government servants whose families are in Europe. A second is to relieve the Indian revenues. The third is to benefit the Indian people." Mr. Ewbank is a bimetallist. "Bimetallism" he says, "is merely a statesman-like attempt to force money properly to discharge the proper functions of money. Bimetallism professes that it could lower the present commercial value of gold and could uplift the present commercial value of silver. It is demonstrable that it could fulfil its promise. Possibly, and even probably, gold in the far future will become too scarce to serve either the world at large or even Europe alone for monometallic currency. But towards that far future no legislation need as yet be directed. For the present we have only to recognize two facts. One is that gold alone will not, during this and the following century, suffice for the currency needs of the world. The other and correlative fact is that silver must on some terms be admitted into partnership with gold. Every man who recognizes these two facts is a bimetallist." The pamphlet was written before the recent legislation on the subject, with which, however, we infer the author to be in sympathy. In summing up, he remarks that "if the Indian Government, by imposing restriction on coinage, can lessen the downward movement of the coined rupee, they will anyhow be enabling the Indian agriculturist to exchange goods with foreign traders on better terms than he now is realizing, while the value of the coined rupee is continually sinking, unheeded or unchecked."

A bright child who had not learned the meaning of *synopsis* and guessed that it meant *opposite*, when asked for the synopsis of the verb "love" replied, "I hate no one."

"He that is about children should well study their natures and aptitudes, and see by repeated trials what turn they easily take, and what becomes them: observe what their native stock is, how it may be improved, and what it is fit for. . . . In many cases, all that we can do, or should aim at, is to make the best of what Nature has given, to prevent the vices and faults to which such a constitution is most inclined, and give it all the advantage it is capable of."—John Locke.

GENERAL NEWS.

Professor Max Müller is the first President of the newly formed "Modern Language Association."

M. Marcel Dubois has been appointed to a newly created chair of French Colonial Geography at the Sorbonne.

Dr. Hobson, of Christ's College, Cambridge, who was Senior Wrangler in 1878, has been elected Fellow of the Royal Society.

By far the most important advance in University Education, during the past year, is the admission of women to degrees in Scotland.

The famous sentiment of Agassiz that he had "no time to make money" should be the keynote of the life of every true man of science.

A new College, called the "University Extension College," has been opened at Reading in connexion with the University Extension movement. It is the first College of the kind.

A Preliminary Educational Congress will be held at the World's Fair, Chicago, July 17-25, and the General World's Educational Congress will be held, July 25-28, in the New Art Institute building.

The empire of Austria-Hungary, with a population of something over 41,000,000, maintains ten Universities. From a report by Dr. Kukula it appears that in 1891 the number of Professors in the same was 1,477, and of students 17,680.

Mr. Robert Adamson, who succeeded the late Dr. Jevons as Professor of Logic and Philosophy at Owens College, in 1876, has been appointed by the Crown to the new Chair of Logic at Aberdeen, which forms part of the dual office occupied by the late Prof. Minto.

A student, being lately asked what Gray meant by the "mansion of the 'fleeting breath'" in,

"Can storied urn or animated bust
Back to its mansion call the fleeting breath?"
promptly replied, "The lungs, Sir." Truly more scientific than poetic.

Over 115,000 schools in England and Wales are now entirely free. The total sum paid for the year 1892 as fee-grant by the Education Department was £1,842,930. The children in free schools number 3,429,577, and the number paying fees varying from 1d. to 6d. a week is 849,991.

Miss Raisin, B. Sc., has recently received recognition from a public body for original work. The Geological Society awarded her the proceeds of the Lyell Fund (£20) for the result of observations made by her, chiefly in the petrology of Wales. This is said to be the first time an English scientific society has awarded any of its honours to a woman.

The draft scheme of the new Welsh University offers some novel features. The form of the university is to be that of a federal organization comprising the three university colleges already in existence. Upon the governing body, i.e., the university court, are to be representatives of the county councils, of the head teachers of public schools, and also of the future Central Intermediate Board. The educational rights of women are fully recognized in the scheme.

The authorities of Aberdeen University have just received from the trustees of the late Mr. John Gray Chalmers, Aberdeen, the deed of foundation of the Chalmers Chair of English Literature, for the establishment of which the deceased bequeathed £12,000. The new chair is to be under the patronage of the Crown. The salary is to be about £350, with class fees added, which are reckoned as equivalent to about £300.

The Mixed Metaphor will always flourish. Here is the latest atrocity. "The glorious church is sailing on the sea of progress, buffeting every billow, weathering every gale, riding triumphant to the heaven of hope—and why? Because she is founded on a rock." The student who can analyze a metaphor will not pray in the same words as the deacon who asked for "showers of blessings to kindle the small sparkle of faith."

Mr. John Morley, Chief Secretary for Ireland, has given notice of a Bill to amend the Irish Act of last year, which practically abolished school fees, and will make education compulsory in the urban districts, as from next 1st January. The amended Bill, which is exceptionally brief, has for its scope the extension of the provisions of the Act of 1892 to the rural districts. Mr. Morley has evidently become convince-

ed of the force of the contentions urged upon him recently by a deputation from the Central Executive of the Irish National Teachers' Organization.

A Georgia gentleman recently met a diminutive negro boy carrying a large armful of books to school. "Is it possible that you study all those books, my boy?" asked the gentleman. "Oh no, sar," replied the boy; "dey's my brudder's. He's got larnin'. Yer jest oughter see dat nigger figgerin'! He's clean cyphered thro' addition; partition, subtraction, distraction, abomination, justification, hallucination, derivation, creation, amputation and adoption. Dat dere brudder er ming is sho got er double-story head on'im w'en it comes to cackilatin'."—*Journal of Education, New England.*

Sir P. Cunliffe Owen will retire shortly from the Directorship of the South Kensington Museum. It is stated that the Science Branch of the Museum will be separated from the Art Branch, and that Major-General Festing, F.R.S., who has been for a number of years an Assistant Director, will become Director of the Science Collections. The post of Director of the Art Museum has been already offered by the Lords of the Committee of Council on Education to Professor J. H. Middleton, Slade Professor of Fine Art and Director of the Fitzwilliam Museum at Cambridge, and has been accepted by him.

The University Extension Summer Meeting to be held this month in Philadelphia is the first meeting of this kind in America. There are now over two hundred centres in as many cities, towns, and villages in that country, regularly engaged in University Extension work and the number is increasing each month. It is estimated that at least fifty thousand students during the winter hear university lectures in these centres, in history, literature, science, economics, or other subjects. The summer meeting is designed primarily to gather as many of these students as possible for a month's residence at the seat of a great university. The University of Pennsylvania has placed its library, museum, laboratories, and other buildings at the disposal of the summer meeting, and the most eminent lecturers have been secured from the leading universities of the country for the instruction.

Last May witnessed a unique spectacle in the annals of Female Education on Presentation Day at the University of London. Sir James Paget concluded his speech with a generous recognition of the benefits which the higher education of women will confer on future generations.

Perhaps the most remarkable sight on that remarkable day was the appearance of Mrs. Scharlieb, in full doctorial scarlet robes, presenting her daughter for an Arts Degree. Among the M.D.'s three were women. Miss Beale presented the students from Cheltenham, Miss Bishop those from Holloway, Miss Maynard those from Westfield College, Mrs. James Bryce those from Bedford College, and Miss E. P. Hughes, of Cambridge, some who took the teaching diploma, while Miss Cock, M.D., magnificent in the scarlet and blue of Brussels, presented the graduates from the London School of Medicine for Women. Altogether 105 women took degrees, and nearly all of them were present.

The Convention of the Education Association for Ontario, 1893, was a great success. In every department there was a good attendance, and in making this statement, we do not forget the fact that the Association is now composed of every class of workers in public and private education. The College and High School department was particularly strong in numbers, ability and experience. The Heads of Colleges and Universities were missed from this, the great educational gathering of the year. These gentlemen limit very much their own usefulness and weaken the work of the graduates of their Universities by not being present to co-operate in every way with the earnest workers of Ontario in the important interests of education. The question which commanded most attention from the Departments was that of the programme of studies.

It is owing to the exertions of Professor Henry Middleton, just promoted to be Director of the South Kensington Museum, and to those of Mr. Waldstein, that the archaeological section of the Classical Tripos has borne such excellent fruit at Cambridge in general, and especially at King's—the College to which they both belong. Greece, says Mr. Oscar Browning, is full of young Cambridge men and King's men, digging, arranging, exploring, and laying the foundation of a school of practical archaeology which is worthy to rank by the side of the German and the French. *A propos* of this, we note that on May 16th, the University of Oxford voted £100 annually for three years to the British School of Archaeology at Athens.

The Council General of the Paris *Facultés* (University of Paris) has submitted to the Minister the report for the year 1891-92. The new Chairs created during the year are as follows: In the Faculty of Law, a Chair of Statistics, a Chair of Commercial Law and of Comparative Commercial Legislation, and a Chair of General Public Law. In the Faculty of Sciences, a course of the evolution of organized beings. Free

courses to the number of twenty have been authorized for the present year, among which are a course in international questions of criminal science by M. Henri Joly, and a course in pathological and physiological psychology by M. Bérillon. The number of students in the Paris *Facultés* in 1891-92 reached a total of 10,522, of whom 1,251 were foreigners. The women numbered 294, of whom 171 were foreigners. The Medical Faculty shows the highest enrollment, *viz.*, 4,111.

"In Oxford there are 150 girl students keeping terms like the men, taught by the same teachers, examined by the same examiners, with the same papers, at the same time, in the same place. In every study some girls have obtained the highest honours, and yet they can neither matriculate, graduate, compete for a prize, nor enter any library, or museum, or lecture-room, except by favour." Thus Mr. Arthur Sidgwick, President of the Teachers' Guild of Great Britain and Ireland, in his address on "The Educational Progress of the Year," delivered at Oxford on 18th April. Meanwhile, to remove this reproach, an unreformed Congregation, says *The Educational Review*, has been legislating valiantly and without obstruction. As far as congregation is concerned, the following examinations have been thrown open to women by statute:—(1) The Doctor of Music Examination. (2) The additional Subject in Responsions. (3) The Honour School of Theology. (4) The Honour School of Oriental Studies. These statutes, in fact when ratified by Convocation, will leave the examination for the B.C.L. the one citadel uncaptured.

That the Ohio Wesleyan University at Delaware needs a new President was well demonstrated, last month. On April 19, a junior secret society attempted to initiate Mr. P. A. Wilson. A sophomore society, the D. O. A., had also planned to initiate the same person, and twelve of its members burst in upon the four juniors who were initiating Wilson. They stripped the juniors of their clothes, whipped them with ropes till they bled, and printed the letters D. O. A. on their cheeks and chins with nitrate of silver. Then they stood them up and burned their bare backs and legs into blisters. The juniors, permanently disfigured, swore out warrants for the arrest of the sophomores, and claim 100,000 dollars as damages. The girls in the coeducational institution have shown almost equal barbarity. On April 27, some forty of them proceeded to initiate five other girls in a manner similar. They took the girls down to the basement in the early morning, and there they used nitrate of silver and printed pictures on the victims' arms and breasts, which caused much agony and will leave scars. A college sentiment which

makes such outrages possible does not grow up in a day, and these acts are simply culminations of practices which only the most impotent college government could permit. Two months ago a hundred of the students dressed in their night shirts went to Monnett Hall, the young ladies' seminary, at twelve o'clock at night, and held a ghost dance howling and yelling and singing unbecoming songs in the presence of the young ladies. This was an outrageous performance, but nothing was done towards punishing the offenders.—*School Bulletin, Syracuse, N. Y.*

When the general plan of the World's Fair was laid, educational interests were overlooked. The agitation of the question, moreover, lacked that promptness and organization which would have secured a special building for school exhibits. As a compromise, a space of 200,000 square feet in the Manufactures and Liberal Arts building was decided upon. This space, comprised in the southern portion of the gallery, being centrally located and well lighted, is considered very satisfactory. Here will be gathered the exhibits of states, cities, and special institutions. The plan has been to arrange the exhibits with respect to locality rather than departments. As an exception to this rule, the manual training exhibits will all be seen ranged together. Some of the universities and special institutions also are placed irrespective of their state locations. The spaces are partitioned off in stalls and on the walls of these the work is chiefly hung. All the northeast section, the finest and largest available, is occupied by the Catholic exhibit. The foreign educational exhibit is in each case to be found with the general exhibit of the respective countries, with the exception of Japan, which has asked permission to exhibit with the American schools. The Children's building is an exceedingly important feature of the educational exhibit. A model kindergarten will be conducted, with all the best appliances. Mrs. Quincy Shaw (daughter of Agassiz) has arranged for a Sloyd department in the Children's building. Here teachers may see the working of the noted system of Swedish manual training.—*School Journal (N. Y. and C.)*

Recently at Madrid there was held a great Educational Congress in which Spain, Portugal and the Spanish American countries all met together, and the questions discussed were such as have a wide bearing and application. Among the general conclusions affirmed by the Congress were: That instruction in all its degrees should be made practical and educative, that is developing; that physical training should be an obligatory part of school work; and that all classes of institutions, from the primary school to the university, inclusive, should be provided with

the apparatus, material, museums and laboratories required for illustration and experiment.

In respect to primary instruction it was urged that it should be entirely educative in its character, and that to this end no more than fifty pupils should be assigned to one teacher. Normal schools were declared necessary and the employment of women in the inspectorial corps for girls' schools was advocated. As to secondary schools the congress declared in favour of a uniform, undivided course of study of six years' duration. Into this pupils should enter at twelve years of age.

With respect to the education of women it was resolved that so far as it is general it should be equal in duration and in thoroughness to that of men. The professions, it was agreed, need not all be open to women. They should, however, be allowed to act as teachers and professors and also be admitted to the practice of pharmacy and of medicine. The Congress further agreed that women should be admitted to public service, and as members of charity commissions, guardians of the poor, superintendents and physicians for prisons, and to positions in post-offices, telegraphs, public libraries, custom offices and banks. The proceedings of the Congress will be greeted with universal welcome by the friends of Progress, as shewing that the Latin races of the Iberian Peninsula and their Colonies are at length waking up to a sense of their backwardness in the great educational movements of our time.

GEOGRAPHICAL NICKNAMES.

Modern Athens	...	...	...	Boston.
Modern Babylon	...	...	...	London.
Northern Athens	...	...	...	Edinburgh.
Paris of America	...	...	...	Cincinnati, O.
Queen of Cities	...	...	...	Rome, Italy.
Seven Hilled City	...	...	...	Rome, Italy.
The Hub	...	...	...	Boston.
Rhine of America	...	...	...	Hudson R.
River of Silver	...	...	...	La Plata.
King of Rivers	...	...	...	Amazon.
Mesopotamia of South America	...	...	...	Paraguay.
Eurasia	...	...	...	Europe and Asia.
Acadia	...	...	...	Nova Scotia.
Sick Man of Europe	...	...	...	Turkey.
Dark Continent	...	...	...	Africa.
Flowery Kingdom	...	...	...	China.
Land of the Midnight Sun	...	...	...	Norway and Sweden.

REVIEWS AND NOTICES OF BOOKS.

HISTORY OF ENGLISH LITERATURE, Vol. II. By Bernhard Ten Brink.
Translated from the German by Wm. Clarke Robinson, Ph. D.:
London: George Bell and Sons: 1893. Price 3s. 6d.

The volume before us is a very remarkable one in more ways than one. It is the great *chef d'œuvre* of an illustrious foreign critic, in which he puts forth all his strength, and compresses the results of a life-long study of Chaucer. The English translation had the benefit of the "paternal oversight" of the author before his lamented death in January 1892. Ten years have passed since the appearance of the English translation of the first volume, now universally recognized as the standard work on our earliest English Literature, and containing a sketch of that Literature from the earliest times to the end of Langland's *Vision*, drawn by the hand of a great master. Students of English Literature will be glad to learn that another volume from the same gifted hand, continuing the history up to the accession of Queen Elizabeth, is still in store for them, although it did not, unhappily, pass through the press in time for the author's revision. It is to be hoped that this last volume will not resemble the *Squire's Tale* of Ten Brink's favourite author, in having "left half-told the story."

The present volume deals with Wyclif, Chaucer, the Earliest Drama and the Renaissance; but Chaucer is the great central figure around whom all else is grouped, and more than half the volume is devoted to him alone. The author throws himself heart and soul into his work; and the thorough grasp, the glowing style, and the uniform sympathy exhibited in the treatment of the subject, carry us enchanted along and make us lay down the volume with a feeling of regret. As regards "the thorough grasp," however, it is strange that Ten Brink does not attempt to clear up the debated question of the family surname of Chaucer's wife Philippa, that he is entirely silent on the question of Chaucer's mother, and that he nowhere even so much as refers to the *Testament of Love*. Perhaps he did not think it worth while to enter upon such discussions, or having no further light to throw upon them—was discreetly silent.

A word about the bibliography. This volume is in the handsome new style of binding in which Messrs Bell and Sons are now issuing their Standard Libraries: for, since the beginning of the present year, the issue of volumes in their old style of binding has ceased. Again we notice on the back of the title-page the curious legend "Printed from American Electro-plates by William Clowes and Sons, Limited, Duke

Street, Stamford Street." Here we have an honest and interesting bibliographical fact, not always thus published as should be done since the new Anglo-American Copyright Act. Thus we are not surprised at meeting in the book such spellings, as "honor," "humor," "skeptical," and "worshiper." Some misprints we notice, but they are very few, and

Dr. Robinson, with great modesty, assigns much of the credit of his translation to "experienced students of English Literature" who have read the proofs, and assumes entire responsibility for all the failings. We hope he will feel comforted by our assurance that his work is a model of what such a translation should be. For the task of translation few could be found better qualified than Dr. Robinson, himself the author of "Our Early English Literature"; while the value of his translation is considerably enhanced by the final revision of the author.

This book is indispensable to every student of English Literature; but, in this country especially, where Chaucer is regularly prescribed at the Universities, it will be found of great assistance to all students preparing for Arts Degrees.

THE POETICAL WORKS OF WILLIAM WORDSWORTH (*Aldine Edition*), edited with Memoir by Edward Dowden, in seven volumes: Vols. IV., V., VI. and VII.: London: George Bell and Sons: 1893. Price 2s. 6d. each.

We have here the last four volumes of the pretty Aldine edition of Wordsworth's Poetical Works: Vol. IV. contains *The White Doe of Rylstone*, *Ecclesiastical Sonnets* in three parts, *Evening Voluntaries*, *Poems in the Summer of 1833*, *Poems of Sentiment and Reflection*, and *Sonnets dedicated to Liberty, and Order*. Vol V. contains *Sonnets upon the Punishment of Death*, *Miscellaneous Poems*, *Inscriptions*, *Selections from Chaucer modernized*, *Poems referring to the Period of Old Age*, *Epitaphs and Elegiac Pieces*, certain supplementary pieces not published in the Edition of 1849-50, and Wordsworth's numerous *Prefaces*. The whole of the sixth volume is taken up with *The Excursion*. Like the opening volume, the concluding one is of particular value. It begins with *The Prelude*, which is annotated by the Editor. Then follow seven valuable Appendices, the first two of which—*An Evening Walk* and *Descriptive Sketches*—are reprinted from the quarto of 1793, the errata of that edition being here corrected in the text. This is followed by what the Editor modestly calls "a contribution towards a bibliography," although it is more nearly complete than any existing bibliography of Wordsworth. It is, however, limited to editions of works by Wordsworth from 1793 to *The Prelude*, 1850 (excluding American Editions). Now comes the most

valuable feature, in our opinion, of the many good new features in this excellent edition. This is a "Chronological Table" of the date of composition, and date of first publication, of every single one of Wordsworth's poems, followed by the volume and page on which it is to be found in this Edition. This table by itself is worth far more than the price charged for the whole book, and could have been compiled by none save an editor of an industry and patience almost superhuman. In many cases it must have cost hours of weary hunting even to be able to set down a date as uncertain or unknown. "This table represents," says the Editor, "the present state of our knowledge; but it is far from attaining complete certainty. Wordsworth's dates, on which we have often to rely, when admitting of a test, have had in not a few instances to be corrected." At the end of this table come the Editor's additions to, and corrections of, all the work in the foregoing volumes. For any poem that may not be found in the next part, "Index of Titles," we are referred to the concluding portion of the book, an exhaustive "Index of First Lines," which takes up 28 pages. The only part of Wordsworth's poetry not to be found in this edition is *The Recluse, Bk. I.*, which only recently saw the light, and is still copyright. The text followed throughout the present edition is the last text of Wordsworth, 1849-50, and that for the reason that Wordsworth himself attached the greatest importance to "the last copy of the text of an author"; while the arrangement adopted is such as to illustrate the working and development of the poet's mind.

We have only to add that this new and magnificent edition of Wordsworth's poems sheds additional lustre on the brilliant Irish *littérateur* by whom it has been edited, and lays the public under a heavy obligation to Messrs. Bell and Sons for supplying them with an edition of Wordsworth which is without a parallel in the annals of modern publishing for excellence of type, convenience of size, neatness, cheapness, scholarship and taste. If Wordsworth ever becomes a popular poet it will be largely due to the scholarship of Dr. Dowden and the enterprise of Messrs. Bell.

JAMES THOMASON (Supplement to "Rulers of India" Series), by Sir Richard Temple, Bart., M.P., G.O.S.I., D.O.L., LL.D., formerly Lieutenant-Governor of Bengal and Governor of Bombay: Oxford, at the Clarendon Press: 1893. Price, 2s. 6d.

In his introduction to this biography the author recalls with grateful remembrance the kindly encouragement which as a young man he experienced at the hands of James Thomason, and warns his readers that his portrait of this eminent man will be drawn by the hand of affection,

The first three chapters of the biography depict Thomason's career from childhood to manhood. His father was a distinguished scholar, who had earned a great reputation both as a linguist and as a preacher. The son inherited, to the utmost extent, the father's ability and aptitude for oriental languages. Landing in Calcutta in 1822 as a Covenanted Civil Servant, Thomason at once turned his abilities to good account. As Registrar of the Sudder Court, he had opportunities of acquiring and mastering the intricacies of Indian law, which he diligently availed himself of. In the course of five years he acquired such proficiency in Muhammadan law, that at his own request he was publicly examined, and the examiners reported that he shewed "intense application and extraordinary talent". He read before the native law officers a passage from the Hedaya in Arabic, and explained to them its meaning in Persian. He further learned Sanscrit in order to study Hindu law. The biographer truly remarks that proficiency such as this, in two such different and opposite languages as Arabic and Sanscrit, is almost unique in Anglo-Indian records. Government in recognition of his distinguished service rapidly promoted Thomason, firstly to an acting District Judgeship and subsequently, in 1830, to be Secretary to Government. He held the latter office for two years and resigned it for "reasons honourable to him and practical in their nature". His object was to gain personal experience of the administration of a district, and as Collector of the Azamgarh district Thomason took the greatest pains to ascertain the wants of his people and their customs and prejudices. "In his own person and with his own hands he grappled with the realities of the business." The biographer rightly gives great prominence to this feature in Thomason's career, and points to it as a bright example which should be followed by all Government servants. So rapidly did Thomason gain the administrative experience he sought that, within the short space of eleven years, he was in 1843, at the early age of 39, selected by the Viceroy as the person best qualified for the appointment of Lieutenant-Governor of the North-West Provinces. He governed the Province with great success during the next ten years and died in harness in 1853. "His administration of the Azamgarh district was the miniature of his government of the North-West Provinces." As Lieutenant-Governor, it was Thomason's duty to effect a resettlement of these Provinces—and in Chapter IX the measures which he directed in this work are fully explained. Notwithstanding his numerous duties and cares he found time to prepare mostly with his own hand two weighty manuals, one entitled "Directions to Collectors," the other "Directions to Settlement officers." Sir R. Temple says, "By these two manuals, he erected monuments of official industry in respect of which no ruler of India has ever

equalled him." Thomason identified himself with the progress of education in the district, and firmly believed in the possibility of improving and elevating the condition of the natives both mentally and physically. His name is associated with the College of Engineering at Rurki, which was established through his influence. One other substantial monument to Thomason's fame exists, namely the Great Ganges Canal—by which some 2,000,000 of acres have been brought under cultivation.

In Sir Richard Temple's estimate of his friend's administrative abilities, which is a very high one, some allowance must be made for the fact that it is drawn by "the hand of affection." He says of Thomason: "We may pronounce that in civil administration he has never been surpassed in the annals of the East, and was one of the most successful Englishmen that has ever borne sway in India." The biography is written in Sir Richard's lucid style. It is perhaps open to the criticism that too much space is devoted to Thomason's private life, and to the religious sentiments to which he gave expression in corresponding with his family. It undoubtedly contains much that all connected with the Government of India might with advantage study and try to imitate.

LITTLE RAJA'S PRIMER OF INDIAN HISTORY by the Rev. G. U. Pope, M.A., D.D., sometime Fellow of the Madras University: London: Longmans, Green & Co.: 1893. Price 1s.

Messrs. Longmans & Co. have been for some time past issuing a series of valuable text-books, specially adapted for use in Indian schools. Mr. John Adam, M.A., is editing the historical portion of the series; and in the English portion has brought out his *Readings in Modern Prose*. Mr. A. J. Cooper-Oakley, M.A., has edited, as part of the English series, a Junior School Grammar. The present volume, "humbly and lovingly inscribed" by the author "to the friends and countrymen of my dear little Raja," although historical, is in no way connected with Mr. Adam's series published by the same firm. Dr. Pope divides his "story"—and we use the word "story," advisedly as descriptive of the setting in which the facts of history are here enshrined,—into three parts. Part I. deals with "Ancient India," Part II. with "Turkoman, Afghans, Mughals, The Deccan, and the Mahrattas: and Part III. with "The British Raj: Preparation, Foundation, Growth, and Consolidation." The story is told in a simple style, reminding one in some ways of the *Tales of a Grandfather*, and is eminently suited to children. Here are a few specimens. "This story (of Harischandra) may not be true, and many of its details are clearly fabulous and poetical; but we get glimpses in it of ancient manners; and the lesson of truthfulness is very good, my dear little Raja, for us all" [p. 20]....." And

now, my dear little Raja, I am going to tell you a little about the Emperor Akbar, who was, I think, one of the greatest rulers that has ever been in the world, when we look at the whole of his character and history. Akbar means great, and was his title, not his name, which was Jelal-ul-din Muhammad" (*The glory of the faith of Muhammad*) [pp. 50—1]....."The Dutch, too, came, and others; but I need not tell you in this small primer about any other European nations except the French and the English" [p. 67]. And so the story is told in 120 pages of clear, limpid language straight from the lips of the *Guru* to the fresh young hearts of little *Raja* and little *Rani*. The book is exactly what is wanted in the Middle forms of our Indian boys' and girls' schools, and in the elementary English teaching of the Zenana.

SPENSER. THE FAERIE QUEENE, BOOK I., with Introduction and Notes by H. M. Percival, M.A., Professor of English Literature, Presidency College, Calcutta: London: Macmillan and Co.: 1893. Price 3s.

It is a genuine pleasure to turn from the wretched annotations that we are so often called upon to condemn in these pages, and hail the appearance of really high-class work such as that now before us. In a masterly Introduction of some 60 pages, Mr. Percival deals in a clear intelligent style with every single topic necessary to the Indian student for a deep and thorough comprehension of the "Faerie Queene". The Editor's work shows a sound grip of the subject and is everywhere marked by learning, research, and good sense. Although Mr. Percival is, comparatively speaking, a young man, his literary labour in connexion with Spenser certainly equals, if it does not surpass, that of his seniors, Messrs. Rowe and Webb, in connexion with Tennyson—and that is saying a great deal. The notes are invariably good and adapted to the requirements of the students of this country by a practical teacher who from experience knows their wants; and the illustrations and parallel instances are always characterized by taste and judgment, and bear high testimony to the sound scholarship of the Editor. We can cordially recommend this book not merely to Indian students, but to the general reader who desires, under safe guidance, to become familiar with one of the finest of

"those melodious bursts that fill
The spacious times of great Elizabeth
With sounds that echo still."

MACMILLAN'S LATIN COURSE, SECOND PART, by A.M. Cook, M.A., Assistant Master in St. Paul's School: London: Macmillan and Co.: 1893. Price 4s. 6d.

This is another of Messrs. Macmillan's valuable classical publications. The book was first printed in 1890, and its popularity has necessitated a re-print with corrections and additions during the present year. It introduces the beginner to the commonest Latin constructions and aims at making him quite familiar with them by continual practice. The pieces for translation into English are particularly interesting, and the author borrows largely from Aulus Gellius. Notes on the pieces for translation are appended; while a Latin-English and an English-Latin Dictionary at the end supply all the information required by the young student for the Exercises and Translation. This is one of the many excellent new books that make an elderly critic regret he is not again a boy so that he might learn his Latin from the pleasanter compilations of the present day. The extracts set for translation are all such as might be expected to interest and in many cases to amuse young readers. As a type, we may mention the story of the woman who, when condemned by Philip as he was leaving a banquet in a state of semi-intoxication, said to the king "*A Philippo temulento ad Philippum sobrium provoco.*" The book will be found well suited for use in the junior forms of those Indian schools that impart instruction in Latin.

A TEXT BOOK OF DOMESTIC ECONOMY, by F. T. Paul, F.R.C.S.: London: Longmans, Green & Co. Price 2s.

The author states in his preface that the general scope and arrangement of this work is founded upon experience gained during the delivery of lectures at the Edge Hill Training College, Liverpool; and that Health has been throughout regarded as the first principle of Domestic Economy. Accordingly the first twenty chapters are devoted to elementary physiology. These chapters are copiously supplied with excellent illustrations, and are written in clear, simple style. They furnish an admirable view of the working of the bodily mechanism such as might be studied with advantage by every class of reader, especially in this country where ignorance of physiological topics is so profound. The next section deals with foods and beverages, their properties, uses, and preparation. This section is admirably adapted to the use of European households or classes; though it is hardly so suitable for Hindu or Muhammadan readers. The next nine chapters are on clothing, and deal with the various dress materials, their characteristics and uses, the principles which should govern the construction of clothes, and errors to be avoided. The last five chapters are on personal cleanliness,

baths, work, exercise, rest, and sleep. It will thus be seen that the book is on lines differing essentially from those of the ordinary works on the subject. The treatment is clear and interesting, and the language simple and free from unnecessary technicalities whilst the illustrations throughout are excellent. The work might well be introduced into all European or Eurasian girls' schools in this country. It would also prove very useful to candidates for the Madras Government Technical examination in Hygiene. Mention is made in the preface of chapters on Thrift, which are not to be found in this volume. As, however, this book is entitled Part. I, it is to be presumed and hoped that a second part will follow which will deal with the more strictly economical parts of the subject, and that these chapters will be found in that part.

CHAMBERS' EXPRESSIVE READERS. Bk. III., Price 1s.: Bk. IV., Price 1s. 4d.: Bk. V., Price 1s. 6d.: Bk. VI., Price 1s. 6d.: London: W. & R. Chambers: 1892.

As the sands of the sea in number, even so is the number of Readers. And the marvel is that, notwithstanding their multiplicity, each new series strikes some new note of its own. The note of the present series is briefly this. We are introduced to a series of short stories, extracts, and poems, graduated in difficulty and, no doubt, intended to cover a four years' school course. At the end of each lesson the long, hard words are syllabized, accented, and explained, and then followed by a dictation test together with exercises on Grammar, Word-building, and the Use of Words. Lists of words collected for Dictation at the end of each volume are common to the four Readers. The last 3 pages of Bk. III. are taken up with Grammar, which in Bk. IV. grows to 15 pages, and still further in Bk. V. to 23 pages, but in Bk. VI. dwindles away again to some three pages of Syntax. Meanwhile a new feature, started in Bk. IV. and continued in Bks. V. and VI., is the exercises in Analysis and Parsing. Bk. V. has lists of Prefixes, Affixes, and Roots, which are continued in Bk. VI. This last book has, in addition to the features which it possesses in common with all the rest, certain new features of its own which we should hardly expect to find in a Reader—e.g. "Rules for Composition," and "How to write a Letter." The type of all the books is large and clear, and the pages are full of excellent illustrations. These Readers are not, however, in any way specially adapted to Indian schools; but we think they might well be introduced into the elementary schools of English-speaking countries.

NOTES ON TENNYSON'S IDYLLS OF THE KING (Bks. I.—VI): Bombay: Sold by Mrs. Radhabai Atmarum Sagoo: 1891. Happily for the author's sake, this catchpenny production is anonymous. One is filled with wonder at such spellings as "Shelly," "hystorical," "Auralius," and "aganized;" at such idioms as, "all what Tennyson has written"; at such marvellous explanations as "unconsciously here means accidentally" "image means" "similitude" (*ignotum per ignotius*); commingled, "become blended"; &c., &c., &c. "The heathen host" (*Coming of Arthur*, l. 8) is explained to be "The Danes or the Norsemen". Of course the poet refers to the Saxons, "Lords of the White Horse", whom Arthur later overthrew in "twelve great battles". The annotator, being unacquainted with English History, did not know that the Northmen first made their appearance in England in A. D. 787, a couple of centuries after the reputed death of Arthur. Four of the first six Books of the Idylls, annotated by competent scholars and published by Messrs. Macmillan & Co., may now be purchased at reasonable prices. We are glad this particular book has been sent to us for notice, as it affords us an opportunity of warning Indian students against buying it. No price is mentioned; but the book is too dear at any price.

LIVY, Bk. IV., with notes by Prendeville, re-edited by J. H. Freese, M.A., (London: George Bell & Sons: Price 1s. 6d.) is a great improvement on the old edition to which we were accustomed as school boys. The text is the best, that of Weissenborn; the orthography is altered for the better; the notes contain wise omissions and valuable additions. An introduction deals with the Life of Livy, the Sources of Early Roman History, Military Tribunes with Consular Power, and the *Ager Publicus*. The two maps—one of Rome, the other of its environs—save the trouble of turning every moment to a classical atlas. We can strongly recommend the book to students that may have to prepare it for public Examinations.

AN ELEMENTARY LATIN GRAMMAR, by H. J. Roby and A. S. Wilkins (London: Macmillan & Co., 1893) deserves a warm welcome in elementary Latin classes. The essential features of Mr. Roby's great work are here presented in their simplest form, but yet so that the pupil has nothing to unlearn on proceeding to more advanced work. An appendix gives in brief the chief points to be noted regarding Roman money, Beckoning of Time, Relationship, Roman authors, Prosody and Metre.

BOOKS RECEIVED.

AURANGZIB ("Rulers of India" Series) by Stanley Lane-Poole: Oxford, at the Clarendon Press: 1893. Price 2s. 6d.

TORCH-BEARERS OF HISTORY by Amelia H. Stirling: London: T. Nelson and Sons, 1893. Price 1s. 6d.

THE NEW MORELL, a Grammar of the English Language with the analysis of sentences by the late J. D. Morell, M.A., revised by P. A. Barnett, M.A., London: Allman and Sons, 1893.

AN INTRODUCTION TO THE STUDY OF GEOGRAPHY, Mathematical, Physical, Political, and Commercial, by W. Hughes, F.R.G.S., and J. F. Williams, F.R.G.S., London: George Philip and Son: 1893. Price 1s. (*Philips' Geographical Manuals*.)

UNCLE TOM'S CABIN, abridged for use in schools. London: George Bell and Sons, 1893. Price 1s. (*Bell's Reading Books*.)

OUR LITTLE ONES. Story-Book Readers for Infant Schools. Nos. I. and II. London: T. Nelson and Sons, 1893. Price 4d. each. (*Royal School Series*.)

MADRAS GOVERNMENT TECHNICAL EXAMINATIONS, APRIL 1893.

COMMERCE BRANCH.

BOARD OF EXAMINERS.

JOHN ADAM, ESQ., M.A., *Chairman*.

M.R.RV. K. SUBRAMANIA AIYAR, B.A., L.T., A.S.A.A., *Teachers' College, Saidapet*.

MR. E. C. WOODS SCAWEN, *Messrs. Arbuthnot & Co.*

MR. TOM LUKER, *Messrs. Addison & Co., (Shorthand only)*.

(Concluded from May.)

II. COMMERCIAL CORRESPONDENCE.

ELEMENTARY. —Time—Two Hours

MR. JOHN ADAM, M.A.

1. Give the most common forms of subscription to a letter, stating when each should be used.
2. Letters to Alexander Arbuthnot and Co., are found on pages 49, 137, 371, 379 of your letter book. Give the complete entry in the index and the cross-reference on each page.
3. How are cheques crossed? Why? What is the effect of crossing?
4. (a) What articles may be sent by V.P.P. and on what conditions?
(b) What is included under "Printed Papers" for Foreign Postage? To what extent may "Printed Papers" contain Manuscript? What are the conditions as to Packing, Size, and Weight?
5. (a) What are the rates of postage for Letters, Postcards, and Parcels, posted in India for the United Kingdom?
(b) What particulars are required in the Customs Declaration for Foreign Parcels?
6. Fill up the accompanying forms from the information given, and return them with your answer paper.
(a) Paying-in slip and counterfoil. You pay to Credit of Account of Mr. E. H. Elliot, Currency Notes Rs. 770; Silver Coin Rs. 57-8-0; Cheques Rs. 873-13-0.
(b) A Bill of Exchange—drawn by Agra Bank on its London Office at 4 m/s for £1,100-10-0. It is drawn on 24th April and sighted three weeks afterwards: is in favour of Wilson and King, specially endorsed by them to the Alliance Bank, and generally endorsed by the latter. Show all that will appear on the Bill at time of payment, including due date.
(c) A Bill of Lading for 65 bales of skins, each 3 ft. by 3 ft. by 4 ft., marked G. C. in a circle, numbered from 137 onwards, shipped by Binny and Co., per S.S. *Galconda*, from Madras to London, to their own order, freight at 37s. 6d. per ton of 50 cubic feet.
(d) An Inland Money Order—supply your own details.
7. Explain—
(a) The following terms:—to ante-date, to consign, to honour, domicile, lien, usance.
(b) The following abbreviations:—B/L; E. & O.E.; F.O.B.; *p. pro*.

INTERMEDIATE—FIRST PAPER.—Time—Three Hours.

M.R.RY. K. SUBRAMANIA AIYAR, B.A., L.T.

1. Explain the following terms:—(1) demurrage; (2) the hide clause; (3) barratry; (4) letter of insurance; (5) charter-party; (6) letter of hypothecation.

2. (a) What is the effect of crossing a cheque?

By whom may cheques be crossed?

When may a specially crossed cheque be again crossed?

(b) In what cases will a cheque be dishonoured?

(c) What are the rights of the purchaser of a cheque marked 'not negotiable'?

3. (a) What must the holder of a second of exchange on which is written 'first accepted with Messrs. Jones & Co., Madras' do in order to get paid for his bill?

(b) When may the holder of a bill of exchange protest for better security?

4. (a) What is meant by (1) accepting a bill for honor, (2) paying a bill for honor?

(b) Explain why the drawee of a B/E, after refusing to accept it, sometimes accepts it for honor.

5. A ship is damaged by collision. In what two ways may the damaged ship recover the loss sustained?

6. The captain of a ship valued at Rs. 31,000 is compelled, in the interests of his ship and cargo, to throw overboard part of the ship's tackle worth Rs. 1,500 and A's cargo worth Rs. 2,000. B's cargo worth Rs. 2,500 is thereby damaged to the extent of Rs. 700. Part of the ship's tackle is subsequently carried away by a storm, the loss thus sustained amounting to Rs. 600. The cargoes of C, D, and E are landed in sound condition and are sold for Rs. 2,500, Rs. 5,000, and Rs. 6,000 respectively. The freight payable by each is 10% of the value of his cargo. Prepare the general average statement, taking the average stater's fee at Rs. 100.

7. (a) What is meant by a company (1) limited by shares, (2) limited by guarantee?

(b) What is a special resolution, and what an extraordinary resolution?

(c) In what cases may a registered company be voluntarily wound up?

8. What is the stamp duty on—

1. A bill of exchange (the first of a set of three) for £300 at 6 m/s.

2. A bottomry bond for Rs. 1,200.

3. An instrument of dissolution of partnership.

4. A letter of credit.

5. The memorandum of association of a company.

6. A marine policy of insurance for Rs. 14,500.

7. A duplicate receipt for Rs. 5,000.

8. A share-warrant to bearer, the nominal value of the shares being Rs. 1,400?

9. What is the postage on—

1. A packet of legal and commercial papers, weighing six ounces, from Madras to Canada.

2. A registered letter, weighing an ounce, from Tanjore to Glasgow.

3. An insured parcel containing jewels valued at £7-10s., weighing 5 lbs., from Bombay to Bristol.

4. An insured letter, containing currency notes to the value Rs. 650, and weighing 2½ tolas, from Madras to Bombay?

INTERMEDIATE—SECOND PAPER.—Time—Three Hours.

Mr. E. C. WOODS SCAWEN.

1. Write letters on the following:—

[N.B.—Be careful about the headings, addresses, concluding styles, &c., and try as far as you can not to copy the dictation of what is given as ideas for replies, &c.]

(a) Stating inability to meet your acceptance and asking for renewal and further time.

(b) An order to your Agent to purchase any two commodities of Produce (to your fancy) at certain limits.

(c) To the Collector of Income-Tax asking for refund of Tax on the amount of premium on your life Policy in a certain Company and collected on your gross income.

(d) Inquiry as to sailing dates of Steamers—

(1) from Madras to London direct,

(2) from Madras to London via Marseilles, Genoa, and Naples,

(3) passage money for those routes.

2. To

THE MANAGER,
BANK OF WESTERN INDIA (LIMITED),

Calicut, Malabar.

SIR,

Being in temporary want of funds to the extent of some 5,000 rupees, I shall be glad if you will lend me the amount and state on what terms.

I remain,

Sir,

Yours faithfully,

J. FOX PARKER.

Reply to this letter, saying that it is not usual to lend money to other than the Bank's constituents, but that you will do so as a special case (giving some reason). Ask for how long the loan is to run, as it is another rule of the Bank not to give loans the repayment of which extends over a year. What instalments will he pay? what security can he offer? suggesting that if he has no security to pledge he should insure his life for Rs.—(state the amount)—in the London and Glasgow Insurance Office; say why you ask for this. That on hearing from him satisfactorily on these points a Pro-Note will be sent for execution and return and the amount will be placed at his disposal.

3. Docket each of the following:—

(a) P. L. SIMMONDS, Esq.,
London, W.C.

BRADFORD, YORKS, 18th August 1865.

DEAR SIR,

Having had no reply to our letter of 25th ultimo, will you please say whether the space applied for by us be granted? Would you also say whether we can get a case for the display of the goods made in Portugal for a reasonable sum, or if we shall require to send one from this country?

We have had so much trouble and disappointment in connection with the Dublin Exhibition, that were it not for our desire to carry out the project and give what impetus we can to this particular class of manufactures in colonial wool, we should almost hesitate to face a Foreign Exhibition.

The favour of your reply will oblige.

Dear Sir,

Yours obediently,

JOSEPH CRAVEN & CO. (LIMITED),

Per N. Burnett.

(b)

NOTICE.

Is hereby given that the co-partnership which has for some time subsisted between M. G. Mackertoom and Carr Lucas, under the firm and style of Mackertoom and Co., has been dissolved by mutual consent. The undersigned, assuming the responsibilities of the said firm, will in future conduct the business on his own account under the style of Carr Lucas and Co.

CANTON,

31st July 1865.

CARR LUCAS.

(c) MR. WATSON,

Cape Town.

LONDON, 14th August.

DEAR SIR,

I confirm my last of 19th July, and have now the pleasure of handing you invoice and B/L of your order for Paris Goods, which I forwarded as directed by mail steamer. I send you an invoice without discount as requested.

I received by last mail your favour of 15th June and immediately referred to your correspondence, when I found to my utter surprise, that the order for glass, &c., you sent in your letter of the 15th January had by some unaccountable neglect, been overlooked, your letter having been put away without the order being copied.

Being absent myself at the time of its arrival, the omission rests with my entering clerk for whose neglect I must apologize. I have now given out the order or execution, and you may depend upon the cases being forwarded by a fast ship by the end of this month.

I remain,
Yours truly,
J. GRIERSON.

4. Write one letter, embracing the following subjects, to your Agent in another country: write a reply to it, and docket the reply:

- Acknowledge receipt of his letter containing a remittance:
- Advise draft on him, giving particulars of it:
- Enclose a draft for acceptance and remittance of proceeds:
- Enclose a remittance for credit of a constituent of that Agency and ask the Agent to advise customer of its receipt:
- Ask him to send you, as published, the Price Current of that place and to debit you with cost, &c.:
- Intimate that a constituent of yours, holding a Letter of Credit, will call on him, and ask his good offices in your behalf.

ADVANCED—FIRST PAPER.—Time—Three Hours.

M.R. RY. K. SUBRAMANIA AIVAR, B.A., L.T.

1. (a) (1) A current account has been opened in a bank in the joint names of husband and wife, the cheques to be signed by both; (2) a sum of money has been lodged in a bank on deposit receipt in their joint names.

If the husband or the wife dies, will the survivor be entitled to withdraw the money from the bank in either or both of these cases?

(b) A current account has been opened in a bank in the joint names of three brothers A, B, and C, who are not partners in business.

(1) C reports to the bank that A and B are dead and desires to withdraw the balance. Will the bank incur any liability if his cheque is honored and it is found that A and B are not dead?

(2) Will the bank be justified in honoring cheques signed by A alone if requested to do so by A, B, and C? If subsequently B requests the bank not to honor cheques signed by A, but to honor cheques signed by C, how far will the bank be justified in following B's instructions?

(c) Arthur, Benson, and Charles, partners; have an account at a bank in the name of their firm, Arthur and Co.

(1) May the bank honor a cheque signed by Arthur in the name of the firm but presented for payment after Arthur's death?

(2) Mr. Benson retires from the firm, and, after such retirement, draws a cheque in the name of the firm in favor of one David, who presents it for payment. Will the bank be justified in honoring the cheque, and, if so, in what case? If the cheque is dishonored, in what case and from whom may David recover the amount?

2. Angus is the drawer, Bacon the drawee, Cox the drawee in need, Daniel the payee, Edward the acceptor for honour of the third endorser Fortey, Gregory the payer for honour of the second endorser George, and Henry the holder, of a foreign bill of exchange. State all that Henry does, on receiving the bill, to get it accepted, also what he does on the due date to get paid for it. How does Gregory recover the amount that he pays and how is George benefitted by such payment for honor?

3. What are (1) the rights and liabilities of a minor as a party to a bill of exchange, (2) the rights of the holder in due course of an accommodation bill, (3) and the rights of the holder of a bill that takes from the drawee, in lieu of acceptance or payment, a cheque for the amount bearing the due date of the bill?

4. (a) On what conditions will an advance of money constitute an insurable interest? Name the principal kinds of advances that may be insured?

(b) How do the duties and liabilities, with reference to the assured, of the mercantile insurance agent differ from those of the insurance broker?

(c) When insurance is effected through a broker, premiums and losses being carried to account without being paid in cash, what will be the position of the underwriter if the broker becomes insolvent, and of the broker if the underwriter becomes insolvent?

5. Explain the following terms:—(1) Lost or not lost. (2) To include all risk of craft. (3) Average payable on every ten bales of cotton running landing numbers. (4) The tail series. (5) Lump freight. (6) Dead freight.

What is the effect of the insertion of the first three expressions in a marine policy of insurance?

6. (a) What items must be taken into consideration to make out a case of constructive total loss?

(b) What is meant by 'the sue and labor clause'? What conditions are requisite to constitute a claim under this clause?

(c) What is meant by the right of subrogation in the case of (1) ship, and (2) cargo?

7. (a) Goods are insured by ship A, and are transferred at an intermediate port to a better ship B, while ship A carries a fresh cargo to another port.

(b) Ship A is disabled on the way and the goods are then forwarded by ship B.

(c) Ship A is wrecked on the way, necessitating the sale of the goods. As the best means of remitting the proceeds to the owner, other goods are purchased for the amount and forwarded to destination by ship B.

(d) Ship A deviates from the prescribed track.

If ship B, in the first three cases, and ship A in the last case, is wrecked, will the holder of the policy of insurance be entitled to recover his loss from the underwriter? If not, has he any remedy against any one else?

8. (a) Name the three classes of 'bills of health'; explain the nature of each. What is meant by 'a ship admitted to practice' and by 'the quarantine of observation'?

(b) A bill of lading contains the printed words 'weight, contents and value unknown' and written words stating the weight. What is the liability of the captain of the ship in such a case?

(c) May the shipowner ship merchandise as ballast; if so, on what condition? How far is the shipowner responsible for damage to cargo caused by leakage and breakage and by rats and vermin?

9. Is demurrage due in the following cases? If so, for how many days?

(a) The charter party provides that the ship is to load and discharge at 300 tons per day. The ship loads 3000 tons at 260 tons per day and discharges at 350 tons per day.

(b) The charter-party provides that the ship is to load at a Spanish port, discharge at a French port, and there reload for an English port, forty running days to be allowed for loading, discharging, and reloading the ship at the several ports and ten days on demurrage. The loading in Spain takes fifteen days, the discharging in France sixteen days, the loading in France ten days, and the discharging in England ten days.

10. 483 boxes of coffee, each containing 12 maunds, are insured, f.p.a. under 3⁰/₁₀, for Rs. 48,000 in series of fifty boxes. Nos. 100 to 107 are landed empty and Nos. 240 to 270 in a damaged condition. Nos. 240 to 260 land 10 maunds a box and sell at Rs. 6 a maund; Nos. 261 to 270 land 8 maunds a box and sell at Rs. 5 a maund. The round value of the coffee at the port of destination is Rs. 8-8 a maund. Prepare the particular average statement, taking the average stater's fee at Rs. 150.

ADVANCED—SECOND PAPER.—Time—Three hours.

MR. E. C. WOODS SCAWEN.

1 Under the Limitation Act, when does time begin to run—

(a) for money lent on a demand prom. note?

(b) when a person gives a cheque instead of cash for amount of a loan?

(c) for price of goods sold and delivered, to be paid for one month after possession?

2. Under what circumstances can a person avail himself of an acknowledgment of debt, and with what effect as to keeping alive the liability?

3. Write out, in correct form, a notice to shareholders of the Madras Borrowing Co., Ltd., convening meetings on certain days, with view of winding up the company under the Indian Companies Act.

4. Write out in proper form a prospectus of a company or association that you propose to start, setting out its capital, how calls are to be paid up, its objects, advantages, financial inducements, &c.

5. A and B are trustees to the marriage settlement of C and D, under which the income of funds invested in $4\frac{1}{2}\%$ Government paper is to be paid to C and D as realised. C and D however, think that the income might be improved if there were a change in the investment, and suggest, with the approval of B, that this might be effected and houses bought out of proceeds of Government paper. A disagrees as the proposal is contrary to the terms of the trust and asks to be relieved of his trusteeship. What position is now reached, and what are the modes by which he (A) can be relieved of office?

6. Give a couple of illustrations as to non-liability for co-trustee's default—with a short explanation as to the provisions of the section.

7. A person having doubts as to the proper stamp duty denoted on a document, wishes to make sure of the amount. How should he proceed?

8. Mention some of the documents that may be stamped with *ad valorem* duty, and some that are exempt from stamp duty.

9. Within what time should a power of attorney executed in England, and received in Madras, be denoted for stamp duty: how is this to be done and what is the stamp fee?

10. What is a composition deed, and what kind and value of stamp should it bear?

11. Give an illustration of each of the following:—
(a) Where partnership for a term is continued beyond the specified period.
(b) As to persons advancing money for share of profits.
(c) Exercise of option to purchase the outgoing partner's share.

12. What is an act of bankruptcy?

13. Can a banker claim the assets of partners of a firm for overdraft of the failed firm? To put a case—say, Smith, Jones, Brown, carry on business as Brown and Co.; they fail: each of the partners has a credit balance at the bank. Give your reasons.

14. Does a banker come under any liability by continuing the banking account of a constituent who has given notice of his bankruptcy by calling a meeting of his creditors with the object of entering into a composition deed? State your reasons, and state also if the acts of such a person would be considered an act of bankruptcy.

III. BANKING.

ELEMENTARY.—Time—Two hours.

MR. E. C. WOODS SCAMEN.

1. State how Bills of Exchange are a convenience in Mercantile transactions.
2. How should a Bank deal with the credit balance of a deceased customer?
3. Of what convenience are Circular Notes, and how do they differ from Letters of Credit?

4. What is a Fixed Deposit Receipt? This at one time requires a stamp, state
(a) When it should be stamped?
(b) Who should stamp it?
(c) Whether it should be an impressed or an adhesive stamp, and of what value?

5. Bearing in mind the fact that a Bank allows interest on some Current Accounts, where and how does the Profit come in?

6. What is generally the business of a Banker?

7. What is the difference between a Private Bank and a Joint Stock Bank?

8. Describe—
(a) Cash Credit account.
(b) Trust account.
(c) Agency business.
(d) Discounting a Bill.
(e) Equitable Mortgage.
(f) Paper Money.
(g) Bank of Issue.

9. Paper Currency having been introduced in India as part of the Monetary System, state—

(a) Its Object.
(b) Its Basis.
(c) Its Conveniences.

10. Is a Bank liable for paying a Forged Cheque, the falsity of which would not be detected in the ordinary course of business, and why?

11. What is Legal Tender? Are Cheques and Money Orders legal tender?

12. An Account is opened at a Bank in the joint names of Charles Chalmers and Alex. Featherpen, as Executors of the late Wm. Turnpenny; one of them dies: whose cheques would the Bank pay and what steps would it take for the course adopted?

13. Are there any advantages, and what, in having an account at a Bank
(a) To a private individual?
(b) To a merchant?

INTERMEDIATE.—Time—Three hours.

MR. JOHN ADAM, M.A.

1. What does the trading capital of a banker consist of? Name the several ways in which the banker uses this capital, the chief sources of his profit, and the principal items of charges.

2. (a) Distinguish between banks of circulation, banks of remittance, and cash-credit banks.

(b) What is meant by 'nursing an account,' and what by 'a dead loan.'

(c) What do the following terms signify in the language of the clearing house:—a charge, the lists, the in-clearing book, the clearing balance book, and delivery?

3. What circumstances regulate the amount of money that a prudent banker keeps in his till? How does he employ his surplus funds? Which is his permanent surplus and which his intermediate surplus.

4. How far will a banker be held liable for honoring a cheque—

(1) when he pays it out of business hours
(2) when the drawer's signature is forged.
(3) when an endorsement is forged.
(4) when the amount has been fraudulently altered.
(5) when the words and figures differ.
(6) when 'bearer' has been altered to 'order' and the alteration not

initialled.

5. The drawee of a bill of exchange with a bank for collection, informs the bank a week before the due date that he cannot pay for a month. Must the bank present the bill for payment on the due date? Should notice of dishonor be given? If so, when?

6. (a) Briefly indicate the various steps that have to be taken to start a joint stock bank, register it as a limited company, and begin work.

(b) Every banking company limited by shares is required to publish a half-yearly statement of its capital, assets, and liabilities. Prepare the prescribed statement in proper form, supplying your own figures.

7. What is the value of the stamp, if any, required by each of the following instruments :—

- (1) The articles of association of a company.
- (2) An inland bill of exchange for Rs. 1,500 at 3 M/D.
- (3) An instrument of co-partnership.
- (4) A banker's receipt for cash deposited to depositors' credit.
- (5) An endorsement on a Bill of Lading.
- (6) A letter of hypothecation accompanying a B/E.

8. (a) On what terms may the public get bullion coined into standard money at an Indian mint?

(b) To what extent are Indian token coins a legal tender?

(c) What securities are held in India against the issue of currency notes? How far are such notes a legal tender?

(d) What are inconvertible bank notes? How would prices be affected by their being made a legal tender?

9. (a) Enumerate and clearly explain the most important functions of money.

(b) What qualities should be possessed by the commodity employed as money?

10. Explain how the exports of India are greater in value than her imports? What does India get in exchange for the excess?

IV. COMMERCIAL GEOGRAPHY.

ELEMENTARY.—Time.—Two hours.

MR. JOHN ADAM, M.A.

1. (1) Enumerate (a) the general causes that help Commerce between countries, and (b) the general causes that hinder it.

(2) Discuss how far these various causes operate between India and Australia, showing what trade, if any, you would expect to develop between the two countries.

2. Write short accounts of (a) wheat, (b) rice, as articles of commerce, with reference both to their fields of production and their markets.

3. What are the principal articles of trade between the Madras Presidency and Bengal and Burma respectively. Arrange them as nearly as you can in order of importance.

4. What the main sources of water-supply, and what the principal methods of irrigation in India? Describe the irrigation of any particular district with which you are acquainted.

5. (1) What are the chief restrictions imposed by the Madras District Municipalities Act upon noxious and dangerous trades?

(2) Enumerate the leading Articles upon which Import and Export Tariff are imposed by the Indian Tariff Act.

6. (1) What are the chief products of Assam, Bellary, Dharwar, Dindigul, Malwa, Mysore, Shevarai Hills, Singareni?

(2) Where are the principal seats of the following manufactures, Carpet, Cotton Cloths, Metal Work, Pottery?

(3) What Railway lines or Branches meet or separate at these Junctions, Bardwan, Bhusawal, Guntakal, Mogul Serai?

7. (1) Describe the Physical features of Ireland and the chief sources of its wealth.

(2) Name its three chief towns and state for what they are best known.

8. Enumerate the most important routes, with the chief towns on each, between England and Australia, across the continent of America. What, from a trade point of view, are the advantages or disadvantages of such routes as compared with the ordinary ocean route?

9. Give accurately the positions of each of the following and state for what it is best known :—Auckland, Cardiff, Dundee, Halifax, Kimberley, Port Elizabeth, Port Royal, Southampton.

MAP-DRAWING.—Time—Half-an-hour.

On the accompanying outline map of India—

(a) Mark the following rivers with their most important tributaries :—*Brahmaputra, Ganges, Godavari, Indus, Irravadi, Caveri, Kistna, Mahanadi, Nerbada, Tapti.*

(b) Insert the mountain chains forming the watersheds of these rivers.

(c) Where the river basins are not separated by mountains, show the boundaries by dotted lines.

INTERMEDIATE.—Time—Three hours.

MR. JOHN ADAM, M.A.

1. "The average value of the British imports for home consumption is, on an average, more than two-fifths greater than that of the exports of home produce." State clearly what is meant by this statement and the force of the phrases italicised, and account for the excess of imports.

2. What are the chief causes of emigration? Enumerate the more important *new countries* and the attractions they hold out to emigrants. Give a general idea of the relative numbers of emigrants from the most important European nations, and the new countries to which they chiefly resort.

3. What is meant by a sub-tropical product? Enumerate the most important, with the countries where they are mainly produced.

4. What are the most important (a) vegetable dye-stuffs, (b) tanning materials, of commerce, and in what countries are they procured?

5. (a) What is *petroleum* and where are its chief fields of production? By what names are various similar substances known and where are they found?

(b) What are the principal countries producing lead, copper, and tin.

6. Give the most important towns in the British isles, with their situation and specialities, manufacturing (a) cotton goods, (b) iron goods.

7. State succinctly the drawbacks and facilities to trade and industry in European Russia. What are its chief natural productions and in what portions of the empire are they produced? Enumerate the chief ports of Russia with their situation and chief articles of export.

8. Into what regions may the United States of America be divided with reference to climate and production? What are the characteristics and staples of each? Describe the railway connections of California with the other regions of the United States.

9. State whether each of the following countries has a gold or silver standard, name its chief coin and its approximate value in Indian money (exchange at 1s. 2½d.):—Germany, Egypt, Russia, Japan, Spain, Mexico.

10. Give a general description (illustrated, if you choose, by a sketch) of the relative positions of the British possessions and the Independent States of South Africa, and describe the general growth of trade in recent years.

MAP-DRAWING.—Time—One hour.

On the accompanying projection—

1. Draw an outline map of India and Burma, marking the land boundaries.

2. Insert all the principal railway lines connecting the east and west coast putting in as many names of towns as you may think necessary to show the routes.

3. Insert the names of the chief agricultural products in their principal fields.

V. SHORTHAND.

ELEMENTARY—FIRST PAPER—DICTATION AND TRANSCRIPTION.

MR. TOM LUKER.

Time for dictation—15 minutes, viz., 10 minutes for the passage, and 5 minutes for the letter. Time for transcription—One hour and-a-quarter.

The following letter and passage are to be read to the candidates ONCE ONLY, in a loud and distinct voice, no word or phrase being repeated, and no punctuation stops mentioned. The time allowed should on no account be exceeded. The passages to be dictated are marked into portions of one minute's duration and each of these is sub-divided into quarters. The reader will read with watch in hand and notice at every quarter minute whether the candidates are adhering strictly to the speed. As soon as the dictation is over, the candidates should be told to transcribe what they have written, and at the end of the time allowed both their shorthand and longhand performances should be given up to the Superintendent.

I. Take down the following passages in shorthand:—

(a) There is no doubt that the most mistaken ideas prevail among men [*] in general, but especially the young, in respect of what is called generosity. [*] Generosity, in its extreme sense, is the virtue of fools and knaves; [*] while justice is the precious attribute of pure sense and real goodness: "Be [59] just before you are generous," says the proverb; and proverbs, however offensive [*] occasionally, never fail to embody what the experience of mankind has found to [*] be most expedient. But this will not please the young man. He [*] must hasten, almost before he has anything of his own to give, to [50] attain the reputation of being generous and liberal. Every claim, whatsoever, that [*] presses upon his attention, must be complied with, whether the property involved in [*] his compliance be really his own, or only part of what has [*] been entrusted into his hands by others. The ultimate necessity of showing that [59] that gift was his own, or of supplying every deficiency which it [*] may have occasioned, does not occur to him; and if it be either [*] discovered to have been another's, or found to occasion a distress to [*] himself or those to whom he is responsible, the effect is not traced [50] to its cause: no, he is still allowed the character of generosity [*] and friendliness, and even perhaps becomes the subject of a sympathetic regret to [*] the public, who say of him, with the worst and most dangerous [*] philosophy, "Alas, like all other good people, he is very unfortunate."

Let all [50] young men be impressed with the propriety—the necessity—and a stern [*] necessity it is—of being just before being generous. It would be easy [*] for anybody to make an outcry about this maxim, as if we [*] were solicitous to suppress every benevolent emotion in the young breast. But this [50] would only be a hasty and wilful misinterpretation of our meaning. Far [*] be it from us to counsel a regular and rigid shutting of the [*] heart against every knock that comes to it from the finger of [*] humanity. All that we wish is, that generosity on every occasion may be [50] governed by justice—by the sense of what is legally required of [*] us, and of other claims which are not only perhaps more imperative, though [*] not so immediate, but are those for which we are much more [*] truly responsible in a moral point of view. If, by the exercise of [53] an extravagant generosity, we injure others who have depended upon our justice, [*] we produce infinitely greater mischief than all that our generosity can prevent; for [*] generosity seldom produces more than temporary relief, while the injury of [*] others tends to undermine and permanently destroy that basis of confidence which upholds [50] society. If by one injudicious act of supposed kindness, we mist ourselves [*] for permanently acting a kind generous part among those who are less [*] happy than ourselves we just take the readiest means to deprive ourselves [*] of the habitual power of exercising that generosity in which we take so much delight.

(b) To the shorthand student in Southern India a knowledge of mercantile and [*] official matters, even to a small extent, will be of use, for it [*] will mainly be in the Government offices or in the establishments of [*] local merchants that phonographers will find employment. An acquaintance with type-writing will [50] be found of great use in many cases, as a shorthand writer [*] can greatly increase the value of his services by being able to transcribe [*] his notes by the aid of a type-writing machine such as [*] is now to be found in most of the large offices in

Madras. [50] To busy officials and merchants, time is money, and the value of [*] a type-writer who can take notes in shorthand can hardly be over [*] estimated. Thousands of clerks in England now use phonography in conjunction with [*] the type-writer, and secure good salaries. Such a state of things ought [50] to be seen in Madras ere many years have gone, to the [*] advantage of the employers as well as the employed. The following may be [*] taken as a part of a letter the phonographer may be required [*] to write in a mercantile office:—Messrs. George Brown and Co., Limited, Cheapside, [50] London,—Dear Sirs,—We are in receipt of your letter of the [*] 13th ultimo, giving cover to quotations for tin-ware and cutlery delivered in [*] Madras Roads at any time during the four months. The next demand [*] for such goods in the bazaars at Madras and Bangalore is now dull.

Transcribe what you have written in longhand.

The Second Paper contained a lithographed passage in Shorthand to be transcribed into Longhand.

INTERMEDIATE—FIRST PAPER. DICTATION AND TRANSCRIPTION.

(1) AND (2).

Time—Two hours and a quarter.

MR. TOM LUKER.

NOTE.—Passages (a) and (b) are to be dictated to the candidates at the rate of 12 words a minute. They are marked into portions of one minute's duration, and each of these is sub-divided into quarters. The reader will read with a watch in hand and notice at every quarter minute whether the candidate is adhering strictly to the speed.

[Time allowed for (a) 10 minutes, for (b) 5 minutes.]

Take down the following in phonography:—

(a) Mr. Morley, M.P., addressed the electors of Newcastle on 20th August in connection with his re-election on acceptance of office as Chief Secretary for Ireland. The meeting was [30] held in the Newcastle Town Hall, and the chair was taken by Mr. Thomas Burt, M.P.

The CHAIRMAN said they met once more on the eve of a great [30] political battle. They were not light-hearted and certainly they were not despondent. (Cheers.) They believed that they would win (loud cheers), but if they were defeated it would not [30] be through under estimating the power, the wiles, or the stratagems of their political opponents. (Cheers.) This was probably the most important election that had taken place in the history of [120] Newcastle. There had been an attempt to minimize its importance. There had been an attempt to represent it as parochial and narrow, and they had been told that nobody from [30] a distance, unless, indeed, he was prepared to advocate Toryism, should come to Newcastle. It was not an exaggeration of speech to say that the eyes of the country and [30] of the civilized world were upon them at the present time. There were great issues at stake pregnant with momentous events—broad, deep, vital questions that stirred the hearts, that [30] appealed to the consciences and to the intellect and judgment of men. There was the question of Ireland. Here was the man who had been selected (cheers) by Mr. Gladstone [120] to bring hope and emancipation and self government to the people of Ireland. (Cheers.) The position was not one to be sought for, and it had not been sought for [30] Mr. Morley—"Hear, hear"), nor was it a position to be shrunk from, and Mr. Morley did not shrink from coming forward. (Cheers.) If that were the only question he [30] thought it ought to appeal to their sympathies—to all that was noblest and best in their nature. (Cheers.) But it was not the only question. There were great questions [30] affecting the well being of the population of Great Britain. Blows were to be struck against monopoly and privilege, and Mr. Morley would take his part in striking those blows. [120] (Cheers.) They wanted liberal and progressive measures. And it was for them at this time to strengthen the hands of the progressive Government by returning again to the side of [30] Mr. Gladstone his brilliant lieutenant, who had done such splendid service. (Cheers.) They were not going to appeal to small personalities. He believed the candidates on both sides would avoid [30] small personalities. But there were supporters of their opponent who did not, but they were not going to follow the political

scavenger into the gutter. (Cheers.) Mr. Morley had been [30] attacked as a man hostile to labor ("Never"), as a man who was unsympathetic for the cause of labor. ("No.") He should like to see the man—no, he would [120] not like to see him; he did not believe he existed—who was the accredited spokesman of large bodies of workmen who would venture to come before an audience like [30] that and tell them that Mr. Morley's record was unsympathetic with the working classes. (Cheers.) That might do as an appeal to the ignorant and the prejudiced; it might do [30] for holes and corners, but it would not do for a free public meeting and a platform where men had the responsibility of endeavouring to speak the truth. (Hear, hear.) [30] He first made the acquaintance of Mr. Morley at a trades union congress. He knew him as the champion of the rights of labor and of free combination at a [120] time when there were few scholarly and able men outside the ranks of labor who looked with anything but scorn upon the trade union movement. Mr. Morley took part when [30] the gas stokers—when the joiners and cabinet makers were unjustly treated; he, long years ago, stood by their side, and was one of the few men who spoke out on [30] behalf of the rights and liberties of working men. He had not changed. (Cheers.) He might look with less favor than some on parliamentary interference, but if they appealed to [30] his writings—writings that were penned long before he was a candidate for the House of Commons—he then declared that unfettered competition would not be a solution of the [120] great labor question. Now Mr. Morley adhered to that view still, as he learned from his sympathetic cheer. What the workmen had to do was to show they had [30] a good cause, that they had something they were advocating which was just, which was practicable, on which they were reasonably united, something that could not be accomplished by themselves, [30] that could only—or at any rate be best achieved by Parliament—and within these limits he ventured to say that Mr. Morley would champion in the future as he [30] had done in the past the cause of the working men. (Cheers.) They had at the present time a candidate who reminded them very much of Biglow's verse about the candidate—

As to my principles, I glory
In having nothing of the sort;
I ain't a Whig, I ain't a Tory,
I'm just a candidate, in short.

This might be [120] depended upon—that Mr. Morley would not hold principles and advocate a policy on the right bank of the Tyne that he would not advocate on the left. (Cheers.) Mr. [30] Morley was not upon his trial. Let them bear that in mind. The Newcastle electors were upon their trial. (Hear, hear.) History told stories which conveyed lessons. Edmund Burke had [30] been rejected by a constituency; Manchester rejected John Bright; Edinburgh rejected Lord Macaulay, and Mr. Gladstone had also been a rejected candidate; but these men were too good for the [30] constituencies to which they appealed. (Cheers.) This was a battle on behalf of the democracy. The working men—the democrats—must rise to the greatness of the situation, and send [120] to the House of Commons a man who would be a brilliant and effective advocate on behalf of every right principle and in support and elevation of our common humanity. [30] (Loud cheers.)

MR. MORLEY, on rising to address the meeting, met with an enthusiastic reception. When silence had been restored, Mr. Morley said:—Mr. Burt, ladies and gentlemen,—Let me [30] begin by saying that I do not at all complain of our Tory opponents for fighting the seat on the present occasion. (Hear, hear.) I admit that I think that [30] the Act of Parliament which compels me to come before you now because I have accepted office under the Crown is an inconvenient and an obsolete Act of Parliament. (Cheers.) [120] I think that, that law is not only a stupid law, but might upon certain occasions even be a dangerous law. (Hear, hear.) Can you not imagine a situation for [30] example, of this country at war, and can you not imagine the Minister of War, instead of attending to the anxious cares of his department, having to come down and [30] spend days in a constituency arguing some questions which had nothing to do with the war? (Hear, hear.) That is not my case at this moment. At the same time [30] I will not disguise from you that, apart from personal inconvenience some disadvantage comes to the public service from the necessity which I am under of fighting for the seat.

(b) A letter of 600 words containing official or business terms and phrases will be the next task for the student, and perhaps the most difficult, unless the student has practised [30] writing such terms and phrases. Here phraseograms are especially useful, especially those dealing with business or official phraseology

The words I have the honour to be, sir, your most obedient [30] servant, for instance, can easily be written as phraseograms. Or adverting to your letter, or with regard to the subject under discussion, or I beg to draw your attention, or [30] you will be good enough, or I have the pleasure to acknowledge receipt of. Most of these phrases can be easily written as phraseograms. Then there are mercantile or business [120] phrases for which the phonographer should be ready, such as, with reference to, your letter of the 1st instant we have the pleasure to state, or yours faithfully, yours obediently, [30] yours truly, I am, dear sir, we are, dear sirs, we shall have the pleasure, the price current, bill of exchange, rate of exchange, we beg to quote the following [30] rates subject to the usual discount, the ship will leave Madras on or about the 20th proximo, and will carry as much cargo as can be secured at this port, [30] the price of cotton goods in the local market is high, but may fall as soon as the stock is increased, as it soon will be, on the arrival of [120] the P. & O. steamer Ganges from Aden, at which port a large quantity was transhipped from the steamer running on the outward line. Law-reporting is made much easier [30] by the use of phraseograms, such as counsel for the plaintiff, counsel for the defendant, the Advocate-General, Chief Justice, attorney for the prosecution, power of attorney, judgment for the defendant [30], and so on. Sir, I have the honour to invite your immediate attention to the estimate for building a bridge forwarded to you with my letter No. 180 of April [30] 4th, 1892. The President of the District Board has urged the importance of the early completion of the work, in order that there shall be no block of traffic [120] during the next monsoon. The material for the work will require to be carted from the nearest railway station, and considerable time must necessarily elapse before the masons and bricklayers [30] can get to work at the foundations. The cost of the bridge can be met out of the special grant sanctioned by the Director of the Public Works Department in [30] his Proceedings No. 16 of 7th May, 1892. Requesting an early reply, I have the honour to be, sir, your most obedient servant, G. W. Thomas, Executive Engineer. Messrs. [30] Peter David & Co., Bellary, Dear Sirs,—We have the pleasure to inform you that the rate for conveyance of heavy goods by the Madras Railway has been reduced [120] from Rs. 3 per ton to Rs. 2, which will enable us to deliver iron at your warehouse at Re. 1 per ton less than the price quoted in our last letter. We [30] trust that this small reduction will place you in a position to increase your indents so that we may be able to arrange for a dozen trucks being sent at [30] one time by a through train, thus saving time in transit. We are also pleased to be able to announce a saving in the cost of loading trucks at the [30] Salt Colours station now that the new steam crane is in use. Your last wire transfer reached us just in time for us to advise the same by the outgoing [120] English Mail.

The Second Paper contained a lithographed passage of *Shorthand* to be transcribed into *Longhand*.

INTERMEDIATE—THIRD PAPER—THE ELABORATION OF NOTES.

Time—Two hours.

MR. TOM LUKER.

[NOTE.—The "notes" are to be dictated at the rate of 120 words a minute.]

Take down in Phonography the following notes of letters and elaborate them into proper letters in *Longhand*:—

1. Commissioner of Police, Bangalore, to Jones Brothers & Co., Printers, Madras. Enquire what they will charge for printing a volume of reports, foolscap size, pica type, 100 copies, rate to be per 4 pages. Ask when they can finish 50 pages and whether they can keep all the type standing for a month after sending in proof of the whole.

2. From Bliss & Co., to the Star Steamship Co.—Say we can't wait longer for the goods over-carried to Singapore and that if they cannot deliver them in three days we must buy other goods like them in the local Market and debit them with the difference in price. Two months is altogether too long to be kept waiting for goods over-carried.

3. From Quill & Co., Solicitors, to Mr. Byramjee.—Say we have received his letter claiming damages done to his wife and child by Mr. Butler's runaway horses,

and point out that while our client is willing to do his best towards helping Mr. Byramjee in meeting doctor's fees, he by no means admits liability for damages, as under the law of India it is necessary in such cases to show contributory negligence on the part of the owner of the horse or his servants. We therefore can't do more at present than advise Mr. Byramjee to wait until his wife and child have recovered, and then see Mr. Butler about the matter.

4. From Hon. George Frishton, to Secretary, Mount Road Total Abstinence Society.—Say regret can't find time to attend meeting next Monday, being on Chamber Commerce Committee, which takes all my spare time. Glad to hear they are increasing in numbers, and that they have succeeded in forming a branch at Pullavaram.

5. From Rev. Thomas Wilson, to Secretary, Friend-in-Need Society.—Forward Rs. 45, result of collection at St. Peter's church, to be applied for relief of widows and children only, in accordance with recent special appeal. Ask whether the local committee can meet the lay trustees to discuss a scheme for relieving all paupers in St. Peter's district with church collections supplemented by a Government grant which is expected to be sanctioned when the Revenue Board examines the papers shortly. If the committee can't entertain any such proposal to please let me know as soon as possible so that I may know what to reply in event of any question by the Board.

6. From Robinson and Co., Limited, to the Union Bank.—Say we wrote them yesterday for a demand draft on London after we had heard exchange was at 1s. 2½d., and that we are surprised to find they sent us a draft at 1s. 2d., especially as we saw in the *Madras Mail* of last evening that demand drafts were quoted at 1s. 2½d. As we get all our bills at the Union Bank we expect them to give us the best rates available; otherwise we must go to the Eastern Bank for drafts. Why don't they send our pass-book back sharp? It is important for us to be able to refer to it at least every two or three days.

7. Tahsildar of Chingleput to Collector of Chingleput.—Forwards report of serious illness of Kurnam of Trivellore village, and asks whether Ramasawmy Naidu may be instructed to go on with the work.

8. Captain Brown, to Arbutnot and Co.—Tell them to book a 2nd-class passage in the *Rone* for Sergeant Tomlinson who is invalided home. Necessary pass will be sent when I know there is a berth available.

Same, to Treacher and Co.—Order ½ ream blotting, 1 ream octavo note and 1 gross penholders to be sent by cooly to the Sergeant's Mess, Fort. Bill to be sent to President of the Mess with original order.

9. Secretary to Director of Public Instruction, to Principal, Elphinstone College.—Ask how many boys there are in the technical class now, how many are learning shorthand, how many are likely to appear for the music examination and whether the Professor of Mathematics has completed his report on the Algebra book forwarded to him last month.

10. Paymaster of Pensions, to Superintendent of Stationery.—Your letter of yesterday. It is difficult to obtain pensioned sepoys who will do the duties mentioned, but I will do my best to get a suitable man as soon as possible.

[The Fourth Paper was on Transcription, for which 40 minutes were allowed.]

The crucial test of system and method is the work of the schoolroom.

The kindergarten teacher occupies the second most sacred position on earth—that of mother being first.

The occupation of the young during the summer vacation should engage the thoughts of those who study the problems of life and the problems of the nation's welfare.

MADRAS EDUCATIONAL NOTIFICATIONS.

Ootacamund June 23rd 1893.

Leave.

No. 47.—Dr. D. Duncan, furlough to Europe for one year, from or after 30th August 1893, under Article 340 of the Civil Service Regulations.

Appointment.

No. 48.—Surgeon-Captain Clarence Forbes, Farnside to act as Professor of Pathology, Medical College, during the absence of Surgeon-Captain J. Smyth, M.P., on leave, or until further orders.

U.C.S. Examinations.

Ootacamund, May 9, 1893.

REVENUE TEST—HIGHER AND LOWER GRADES.

No. 39.—It is hereby notified that, at the next Special Test Examinations to be held in October 1893, and at future examinations, the Manuals of Taluk and Village Accounts will form together one of the subjects of the Revenue Test, Higher and Lower Grades. Candidates must obtain one-third of the maximum marks (60) assigned to the subject. The fee for admission to the Revenue Test will, in future, be Rs. 10 for the Higher Grade and Rs. 8 for the Lower Grade.

Candidates who passed in one or more tests at the Special Test Examinations held in October 1892, and whose names appear in the classified lists in the Supplements to the *Fort St. George Gazette*, dated the 17th, 24th and 31st January, 7th, 21st and 28th February, 7th and 14th March 1893, will be furnished with certificates on applying, on or after the 1st proximo, to the Collectors of the Districts in which they were examined. Those examined at Trivandrum and Ernakulam should apply to the Resident of Travancore; and those examined at Bangalore to the Educational Secretary to the Government of Mysore, Bangalore. In applying for certificates, each candidate should state the office he holds.

Office of Comr. for U.C.S. Exms., Madras, 5th June 1893.

(By order.)

It is hereby notified that there will be a re-examination of Upper Secondary Candidates at the following stations in the subject or subjects mentioned opposite to each:—

Chicacole	Geography.
Vizagapatam	Geography and History of India (Rise of the British Empire in the East).
Vizianagram	Geography and History of India (Rise of the British Empire in the East).
Mangalore	History of India (Rise of the British Empire in the East).

The exact date on which the re-examination will be held will be made known in a subsequent notification.

Office of Comr. for U.C.S. Exams., Madras, 17th June 1893.

(By order.)

Rapid sketching of maps from memory, not cartography, is the map-drawing that is essential in the study of geography.

*Corporal punishment, in whatever way, should be administered only for offences involving moral disgrace and criminal practices.

Educational Books.

Notice is hereby given that copies of the following Educational books have been received at the Office of the Director of Public Instruction, Madras, where they may be seen at all reasonable times.

Name of Book.	Price.	Pub-lishers, &c.	
ENGLISH.			
<i>Macmillan's English Classics—</i>	£. s. d.	Messrs. Macmillan and Co.	
Macaulay (G. C.)—The Marriage of Geraint: Geraint and Enid.	0 2 6		
Do. The Holy Grail ...	0 2 6		
Percival (H. M.)—The Faerie Queene, Book I ...	0 3 0		
Pollard (A. W.)—Chaucer (<i>Macmillan's Literature Primers</i>) ...	0 1 0		
Rooper (Miss W. L.)—			
Little Tales for Little Folks—			
Ella's Fall— ...	0 2 0		
Fred's Run ...	0 2 0		
Honest Dolly ...	0 2 0		
Nora's Dark Look ...	0 2 0		
Patty's Walk ...	0 2 0		
The New Dictation Book for Standards IV to VII ...	0 1 0	Messrs. Blackie & Son.	
Baynham (George W.)—			
Elocution—Selections from Leading Authors and Dramatists with Rules, &c. ...	0 2 6		
Shakspeare, Henry V. (<i>Blackie's School Classics</i>) ...	0 0 3		
Vere Foster's Copy Books (<i>Bold Writing Series</i>)—complete ...	0 0 2		
	each.		
Lishman (R.) and Beszant (S. L.) Experimental Science as a class subject ...	.....		
Hassel (Joseph)—Technology for Schools ...	.....		
Robertson (McGregor)—Text-book of Physiology (<i>Blackie's Science Text-books</i>) ...	0 4 0		
Blackie's Guide to the Science Examinations.			
Harrison (W. Jerome)—Guide to the Examination in Alternative Chemistry. ...	0 0 6	Messrs. Percival & Co.	
Do. do Physiography (Elementary Stage) ...	0 0 6		
Do. do (Advanced Stage) ...	0 0 6		
Do. do Hygiene ...	0 0 6		
Loe (David Allan)—Guide to the Examination in Applied Mechanics ...	0 0 6		
Pinkerton (R. H.)—Do. do Theoretical Mechanics. ...	0 0 6		
Swanson (James)—Do. do Botany ...	0 0 6		
Do. Do. do Physiology ...	0 0 6		
Lyde (Lionel W.)—An Elementary Geography of Australia (<i>Glasgow Series</i>) ...	0 1 0		
English Classics for Schools—			
Murison (W.)—Burns, Byron and Campbell's Shorter Poems ...	0 0 6	Messrs. Percival & Co.	
Murhead (E. D. A.)—Byron's Child Harold, Cantos III and IV ...	0 0 10		
Steele (R.)—Dampier's Voyage round the World ...	0 0 10		
LATIN.			
Kingdom (H. N.)—Cornelius Nepos (<i>Junior Students' Classical Series</i>) ...	0 2 0		
GERMAN.			
Beresford—Webb (H. S.) Goethe, Italienische Reise ...	0 2 0		
Bilder aus der Türkei (<i>Modern German Series</i>) ...	0 1 0		
Das Wirthshaus im Spessart (<i>Camb. Univ. Press</i>) ...			

Office of the Director of Public Instruction,
Madras, 31st May 1893.

D. DUNCAN,
Director of Public Instruction

THE INDIAN JOURNAL OF EDUCATION

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(New Series)

AUGUST 1893

[No. 80]

The Editor has to remind all LITERARY correspondents, as well as publishers forwarding books, magazines, etc., for review, that, to ensure attention, they should be addressed to him at PACHAIYAPPA'S COLLEGE, MADRAS; and, for publication in the succeeding issue, should reach him not later than the 20th of each month. All BUSINESS communications should be addressed to the Publisher.

EDITORIAL NOTES.

Since our last issue, the University of Madras has elected a representative to be recommended to His Excellency the Governor for nomination to a seat on the Madras Legislative Council. That honour has fallen to the Rev. W. Miller, M.A., LL.D., C.I.E., Principal of the Madras Christian College, and is an appropriate recognition of his long educational services, and a crowning tribute to a great educational career. The greater portion of his long and honourable life has been generously dedicated to the training of the youth of the Madras Presidency, of whatever caste or creed, in the greatest of Missionary Colleges—a college the greatness of which is mainly due to his own wonderful powers of organization. By his election the Council gains an able adviser, and one whose

thorough knowledge of all educational details, from the lowest to the highest, will be of great help in deciding knotty questions of educational and general legislation.

* * *

Of all the *non-Indian* educationists in the Madras Presidency who might be regarded as possessing any claim to represent the University on the Madras Legislative Council, the Rev. Dr. Miller stands by many titles *facile princeps*. We cannot, however, lose sight of the fact that the election of *any non-Indian* to represent any Indian University is practically a frustration of the whole aim and object of the new India Councils Act. This Act was undoubtedly framed by its devisers and passed by Crown and Parliament as a concession to the just and reasonable demands of the natives of this country for the introduction of the elective principle into the Legislative Councils of the various Indian provinces. Its primary object unquestionably was to secure by election the best trained and most highly cultured native representatives of native opinion that India could afford; so that men of the people, who knew the mind and aspirations of the people, should help the Provincial Governors to make laws that would command the respect and enlist the sympathies of the people. Such a candidate was in the field in the person of Rai Bahadur P. Ranganada Mudaliyar, M.A., a distinguished veteran educationist, who is Professor of Mathematics at Presidency College, Madras, a Fellow and Syndic of the Madras University, and who, in short, holds among native educationists a position which is the exact counterpart of that held among European educationists by the Rev. Dr. Miller. It is a curious incident of the election that each of the two candidates received 18 votes at the first ballot, and exactly the same number at the second. Then Mr. Ranganadam withdrew his name. Even after this withdrawal, as the votes were still even, the Vice-Chancellor, Sir Arthur Collins, Q.C., had to give his casting vote in Dr. Miller's favour, so that one candidate might have a majority of votes. The constituency was represented by 18 European and 19 native voters. In the Universities of Bombay and Calcutta, the new Act has attained its object, because in each of these we find a distinguished native graduate, who is a true popular type both of his University and of his Presidency, and in every way "racy of the soil," chosen as the University representative on the local

Legislature. Thus far it is only the University of the Dravidian peoples that has slighted her own sons.

* * *

Education in Burma is advancing with giant strides. When Mr. J. van Someren Pope, M.A., the first Director of Public Instruction in that province, was sent thither from the Bengal Educational Department in 1890, there were in the whole province only two Inspectors of schools and 16 deputies. It is gratifying to find that during Mr. Pope's brief but energetic *régime* the work of organization has been making rapid progress, and a good and efficient staff has been appointed from England. Burma is a purely Grant-in-aid Province. In all Burma there are only three Government Schools, and one Government College. All the other institutions are under Municipal or private management. To examine these for the purposes of the grant, all Burma has now been divided into four circles and an Inspector has been placed in charge of each circle. The new Inspectorate is a graded service rising from Rs. 500 to Rs. 1,000, and consists of two Senior and two Junior Inspectors. Three of these four are distinguished University Honours men. There are now in the Province 32 Deputy and 4 Sub-Deputy Inspectors, and others will be appointed as the need arises. One of these deputies is for Tamil and Telugu schools, all the rest being for Burman and Karen schools. As we pointed out in an article in our last number, the necessity for holding the Calcutta entrance examination at numerous centres all over Burma, and the refusal of the University authorities to hold it at more centres than one, have led to grave and reasonable discontent, and given rise to a strong and loud demand that Burma should have a University of its own. We give on another page an interesting little sketch of the question from the pen of the Hon. Mr. Justice Jardine, formerly Judicial Commissioner of Burma, and first President of the Educational Syndicate.

* * *

In our April number we published with comments the Madras G. O. dated 27th Feb. 1893, No. 155, Educational, regarding the Annual Election of two Fellows to the University of Madras. In our present issue we give certain further new rules relating to the same, recently approved by the Syndicate. From these it will be seen that candidates for election as Fellows should be proposed and seconded by existing Fellows present at the next annual meeting

of the Senate, which takes place on 31st instant. The annual meeting shall specify the qualifications of the candidates entitled to vote. For Madras voters the poll is to take place at the Senate House, in the presence of two members of the Syndicate, on a day and at an hour in next November to be hereafter notified. Mofussil voters must fill in their voting papers in the presence of a Magistrate (not being a village Magistrate), who will authenticate it with his signature and shall despatch it in a registered cover to the Registrar so as to reach him not later than the day before that fixed for voting at the Senate House.

* * *

We trust that the graduates entitled to vote will use their new privilege worthily and well. This will best be done by electing distinguished native graduates whose claims and merits have been long ignored. *The Travancore Times* complains that the most learned men on the West Coast are constantly passed over. Foremost of these is Mr. Shangara Soobier, the present Dewan of Travancore, who was for a long time Director of Vernacular Education on that coast. We have no doubt, however, that this gentleman's name will be on the next list of appointed Fellows. We should recommend graduates to vote for native gentlemen whose names would not be likely to figure among the Director's recommendations as they finally left the hands of His Excellency the Governor of Madras.

* * *

The Rev. E. A. Abbott, M.A., D.D., late Head Master of the City of London School, and best known in India, perhaps, as the author of *A Shakespearian Grammar*, has written to the July number of *The Journal of Education* (London) in particular, and to the English press in general, in consequence of a letter received from Professor Aldis, and he appeals for the following reasons to all English University men not to accept the Professorship of Mathematics in Auckland College, New Zealand. Professor W. S. Aldis was Senior Wrangler and First Smith's Prizeman in 1861, and subsequently, for several years, Principal of the College of Physical Science in Newcastle-on-Tyne. "The failure of his wife's health induced him, about ten years ago, to accept the Auckland Professorship, at some sacrifice of income, on the understanding, of course, that he was irremovable as long as he could do the work. After nearly ten years of service, here is the result, as stated in

the following extract, which bears date 19th May. It is given with the mere suppression of the name of the chief mover in this business.

"Last Monday—succeeded in getting a majority of the council to give me six months' notice of the termination of my engagement, on the ground that the amount of work I did could be perfectly well performed by plenty of men who could be got for a much lower salary. . . . No charge of incompetence or neglect of duty has been made against me, unless by slander behind my back. I have never been asked to meet the Council; the debates were held with closed doors; and, before I even knew what was being proposed, I was allowed to read the result of their discussion, in the *New Zealand Herald*."

For the present, to succeed a professor thus arbitrarily dismissed by the Council involves not only the possibility of being similarly treated, but also the certainty of contributing to what Sir Robert Stout has justly described as "a grievous injury to higher education." English University men will agree that if Professor Aldis's statements cannot be denied, no one can take the post without a forfeiture of self-respect. We believe that *esprit de corps* is sufficiently developed among English University men to prevent any of them from accepting a post vacated under such circumstances as these. We recall with pleasure that they all held aloof before, and not so very long ago, in a precisely similar case regarding a Professorship in Melbourne. What applies to the Colonies applies with even greater force to India and Burma. *Noblesse oblige.*

* * *

We rejoice to see that the Colleges and Schools of Bombay have at last seen the advisability of starting an Athletic Association on the lines of the Association so long in existence in Madras. The question has been distinctly in the air for a long time in Bombay, and it is a remarkable coincidence that the new Association has been started so shortly after the publication in our June number of the new rules of the Madras Association. The good work done by *The Advocate of India* in keeping the want of such an Association persistently before the eyes of the educational public of the Bombay Presidency, has, we believe largely contributed to bring about the establishment of the new Association, which we greet with hearty welcome. If anything has been done by ourselves in the way of giving the little impetus required to set the ball in motion, we feel that we have done a good work. We hope shortly to see a similar Association started for

the Colleges and Schools of every Presidency and Province under the Viceroy's rule. Study is all very well, and must on no account be neglected; but it is apt to be overdone, more particularly in the case of the Indian student. We all know what makes Jack a dull boy, and Athletic Associations are just the thing to drive away the dullness from schoolboy Jack, no matter what zone he lives in.

* * *

In this connexion we deem it for the advantage of all Colleges and Schools in India and Burma to make known that, by an arrangement concluded with Messrs. Oakes & Co. of Madras, and having for its object the encouragement of sports in Educational Institutions, all Sports Clubs whatsoever connected with Colleges or High Schools in India and Burma, and all College and High School Clubs in Madras town connected with the Madras Athletic Association, may if they forward their orders through the Honorary Secretary of that Association, obtain all their sports materials at twenty per cent. below Messrs. Oakes & Co.'s credit prices, or at ten per cent. below their cash prices. This arrangement effects a considerable saving for distant clubs, even after paying train and boat fares. No orders, however, will be attended to unless forwarded through the heads of the various institutions. Messrs. Oakes & Co. are also prepared to supply gymnastic apparatus of the best material and workmanship at the lowest prices to the same institutions. All orders should be addressed to "The Honorary Secretary, Madras Athletic Association, Pachaiyappa's College, Madras."

* * *

We invite special attention to one of the Madras Educational Notifications to be found on another page. By it all the local Examining Committees appointed under articles 4 and 5 of Government Notification, dated 14th January 1891, for the conduct of the Lower Secondary Examination, have been abolished. Future examinations will be held in accordance with the new Notification, the text of which we publish and comment upon in this issue. Regarding the new Notification, we likewise publish a notice defining the relations to the new Examination, of candidates who have already passed in certain portions of the old Examination. Those who have passed in the compulsory subjects alone, under the old notification, will be declared to have passed the new Examination

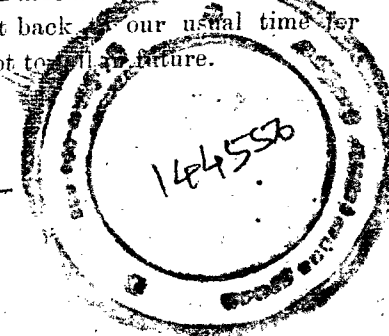
if they now come up and pass in the History of India and in Geography, and in any two of the new optional subjects. Those, on the other hand, who have already passed in two or more optional subjects alone, will be required to come up and pass only in the new compulsory subjects. And finally candidates will be required to answer the non-language papers in the language brought up by them as their first language.

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In our present issue we publish an exceedingly able and well-considered address by Dr. Hermann E. von Holst, well worthy of the great historic occasion that called it forth. It was delivered last January at the first Convocation of the University of Chicago, which may in many respects be regarded as the foremost University of the United States. The passionate appeal contained in the address for the creation of truly great national Universities, instead of the present "torsos" of Universities, still rings through the States, and has sent through the hearts of their citizens a thrill that cannot fail to arouse them to a sense of their duty as patriots in providing their people with the loftiest form of education humanly attainable, and thus best enabling them to wrestle with the terrible problems which America will sooner or later be called upon to solve. We likewise reproduce two other articles connected with America. One of these, by Dr. Emil Seytter, is likely to prove of interest to teachers in Indian schools as throwing light upon the inner meaning of familiar and important geographical names. The other should be of interest to all students of literature.

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We have again to express our great regret that correspondence and much interesting matter that has been long standing in type has been perforce crushed out of this issue. In our next number we hope to overtake all such arrears. With efficient sub-editorial assistance we have again got back to our usual time for publication, behind which we hope not to fall in future.



MADRAS LOWER SECONDARY EXAMINATION.

An important Notification, which we publish elsewhere, has recently been issued with reference to this examination. The Lower Secondary Examination was established in lieu of the old compulsory Middle School Examination by notification, dated January 14th, 1891. This original notification has been in force only for two and a half years—that is, only two complete examinations can have been held under it. Brief as the duration of this unhappy examination has been, it has been sufficiently long to establish the fact that the original notification set up a state of affairs that was utterly untenable, and the appearance of Dr. Duncan's new notification will be hailed with delight by all who had anything to do with the examination under the former scheme.

A brief contrast between the two notifications will show what points of superiority are noticeable in the new over the old. The first paragraph of the new notification is significant. In the original notification we find that the examination was to be held annually in the months of December, January, February, March, April or May. In the notification published in the *Gazette* of May 30th, 1893, this is altered to “an examination shall be held beginning on the first of December.” There can be no doubt that it is distinctly an advantage to have the examination simultaneously in all parts of the Presidency. Considerable confusion has hitherto resulted from allowing it to spread over half a year. We next notice that the examination is to be under the control of the Commissioner and to be conducted according to such instructions as he may issue to examiners appointed by him for the purpose. This does away with the former arrangement by which the Presidency was divided into districts, each having its own committee responsible for the conduct of the examination in their own district. Two years' working of this system has been amply sufficient, as might have been anticipated, to reveal its inherent defects.

In the first place considerable divergence of standard was to be expected among so many examining boards who were only controlled as to their standard by the vague directions implied in the maxima and minima of the Madras School Rules. This divergence was, of course, increased by the fact that the examination was to be mainly *viva voce*, thus leaving ample scope for the indi-

vidual characteristics of each committee and of each member of the committee to assert themselves. But a far more serious objection to the former scheme was that, in the words of the notification, “the examination was to be mainly a *viva voce* one conducted in strict accordance with the requirement of the Grant-in-aid Code.” Now it is generally recognized that a *viva voce* examination is valuable either as a test of the collective merit of a class, judged by the intelligence and readiness displayed in answering, or as a more searching test into the individual capabilities of single candidates as a supplement to a written paper. Plainly no such conditions could obtain when the examination of some three thousand candidates had to be provided for in subjects so varied as English, some six vernacular languages, Latin, Arithmetic, Mathematics, Geography, History of England and India, Natural Science, Domestic Economy and Needlework. The consequence of attempts made to carry out the examination as a strictly *viva voce* one, was that great dissatisfaction was expressed by many of the candidates, and certainly the general impression among members of committees was that the test was practically worthless. In districts where a large number of candidates appeared, it was found impossible, without expending months in the actual examination, to carry it out as a strictly *viva voce* one, and recourse therefore was largely had to cyclostyle and printed papers, thus vitiating what was presumably the leading principle of the former notification. This state of things was obviously an eminently undesirable one, since the examination might be regarded as being conducted under false pretences. In the words of the report presented by the Chairman of one of the Districts, “It thus entailed numerous objectionable features and led to well-founded discontent on the part of both the examiners and the examinees.” The examination in future will be a written examination conducted by means of printed papers for the whole Presidency, and thus the most serious defect of the old scheme is removed.

Another point of superiority noticeable is that the syllabus for the examination is published in the notification itself, whereas in the former notification it was only to be obtained by a reference to the curricula of the Grant-in-aid Code, and these curricula being drawn up quite independently of the Lower Secondary Examination notification, did not, in many instances, correspond in the slightest degree

to, nor meet the requirements of, that notification, so that great confusion and misunderstanding inevitably ensued. For example, the Seventh Standard Examination, being purely an inspector's test applicable to schools taken singly, prescribed, as was only right, a test in reading, with questions to follow on the subject matter. When this provision came to be applied to a number of candidates of all races gathered from schools of every description, it was found that each school, nay very often each candidate, presented a different reader, and that in the same reader very many different selections were brought up; with the result that in one district alone, in English, nine different readers with seven different selections in each, were presented in English, and five different readers with four different selections in each in one of the vernaculars. We cannot but sympathize with the misery thus inflicted on the unhappy members of the examining committee who had to frame carefully prepared questions adapted to a rigidly marked curriculum on such a variety of selections as this. Small reason was there for surprise that many candidates on leaving the examination room bitterly complained that questions had been asked in portions of which they knew nothing, whilst the parts they had carefully studied had been entirely omitted.

Again we notice that the standard for optional and compulsory languages is practically the same. Formerly candidates were tempted, by the fact that a less amount had to be presented in optional English, to take vernacular as their compulsory language. It is true that vernacular as a compulsory subject was only supposed to be presented by vernacular schools. But this proviso introduced a most vicious circle, since vernacular schools were apparently defined as those presenting vernacular as their compulsory subject, and in many schools the teaching of English was thus implicitly discouraged.

Considerable confusion was also caused by the fact that the lists of passed candidates were to be drawn up by district committees and formidable tabular statements were to be prepared by them. As a matter of fact many candidates passed part of their examination in one district and part in another, and the utmost difficulty was experienced in obtaining information as to the results of the passed candidates. Indeed, an instance was known in which a candidate presented himself for examination in all the

subjects in no less than three districts in the same year, in the hope of passing in some one of them. It is not exactly known how far he was successful, but he certainly passed in some one branch, not the same, in each one of the districts in question, thus seemingly emphasizing the difference of standard between the different centres. As all results and lists will now be prepared under the direct control of the Commissioner's Office, no such confusion as this is henceforth possible.

Another consideration which has probably influenced the Commissioner in the issue of the new notification is that of expense. No details as to the financial aspect of the question are to be obtained from the Proceedings of the Commissioner, No. 2133 of 21st September, 1892, in which the Lower Secondary Examination reports for the year 1891-92 were reviewed, but it is no secret that in some districts heavy deficits had to be shown, and it is highly improbable that among the 32 centres, spread over 20 districts, at which the examination was held, there was a sufficient number possessing a large enough population to enable the excess of receipts over their expenditure to balance the deficit in other districts. The examination must therefore have resulted in a loss to the Government. Considerable dissatisfaction was also experienced at the method of remuneration adopted, since members were paid Rs. 10 per diem for such time as the examination lasted, quite irrespective of the number of candidates examined, or of the quality or intensity of the work required, and quite apart from the consideration, which one would imagine to be obvious, that such subjects as Arithmetic and Mathematics must involve the setting of papers which would have to be marked after the examination was over.

We might proceed at greater length, but we consider that we have sufficiently shewn that the present notification promises far better than the old one; and Dr. Duncan has to be congratulated on the courage and skill with which he has grappled with the problem and removed a state of things which, during the very short time it had existed, had proved itself to be eminently undesirable.

Whatever you ask a child to do; take the time to see that he does it well.

Earn the salary you think you ought to receive, not that which you do receive.

A UNIVERSITY FOR BURMA.

BY THE HON. MR. JUSTICE JARDINE.

(Late President of the Educational Syndicate, Burma).

A few years ago, when on furlough in England, I brought to the notice of the readers of *The Tablet* the important step taken towards higher education by the establishment of the Educational Syndicate in the autumn of 1881, with jurisdiction over the whole of the Burmese territory then under the Queen's dominion. This "Syndicate" is in fact a School Board, which from that date has performed many of the functions of a University: in a few years it established a College of Arts and a Law school at Rangoon, as well as a great public Library, the only free library, I believe, in the Indian Empire. The founder was Sir Charles Bernard, then Chief Commissioner or Governor of Burma, under the Marquis of Ripon, then Viceroy of India, whose proclaimed policy was in the direction of local self-Government. That policy was in this instance applied so as to admit to a responsible voice in the control of education the several classes of the Magistracy, the learned professions, and the ministers of religion, with the addition of some very intelligent natives of the country. A Council very like the Senate of an Indian University was thus empanelled: the Presidency thereof was offered to Mgr. Bigandet, Bishop of Ramatha, and Vicar Apostolic, a peculiarly appropriate recognition of his services to education during his long career as the head of the Catholic Mission and of his learned distinction as the translator of the Burmese Legend of Buddha. The learned Bishop declined the honour on account of his advancing years: but, as he consented to become Vice-President, I more readily accepted the burden, being then the Judicial Commissioner, as the Chief Justice of Burma is called. At the start there was some little friction with the State Department of Education; but every month and year saw the Board amplifying its duties, organizing learned examinations, advising on grants in aid and on the arrangement of municipal schools. It was natural, therefore, to feel that we were laying the foundations of a University, and the feeling was very soon expressed, and has, at least until 1884, when I left Burma (and I believe ever since), dominated the counsels of the Board. The recent mails from India contain an account of some definite proposals which have just been made for the erection of a University, and some scanty notices of the Rangoon newspaper criticism of the movement.

It seems that the discussion began last year, when the European press opposed the scheme, on the grounds that it would seriously add to

the taxation of the Province, and that the public might be debarred the use of the Free Library. The Syndicate has since made further inquiry, and shown that these fears are groundless. Its members are more keenly alive to the public value of the Library than the people themselves; and they calculate that the University will be a less expensive institution than the Syndicate, on whose ashes it is to rise. All this has been stated in a long report made to the Viceroy of India in Council, in which the Syndicate declares that the time has come when Burma should have a University of its own, and enlarge the sphere of its work, and form itself, with such additions as may be necessary, into the Senate of Rangoon. It is proposed to create Faculties in Arts and Law, with provision for Medicine, and Engineering, as higher education develops. To my mind, the new departure is not too soon. The immediate result of the creation of a large popular Board was a revival of learning in all directions. When I was there, only one Burman had ever taken a degree, and that was in America, where he had been educated. Now all this has changed, and a new and vast territory has been brought under British rule since then. Let me add that the Director of State Education approves heartily of the scheme, and expresses a hope that the officials who surround the Viceroy at Calcutta or Simla, will not damn with faint praise or spoil by cold delay the aspirations of the best men in a great province.—Abridged from "*The Tablet*" (London).

THE NEED OF UNIVERSITIES IN THE UNITED STATES.*

By HERMANN E. VON HOLST.

From the *Educational Review* (New York) February, 1893.

"Eternal vigilance is the price of liberty!" The children of this country are sure to have this sentence indelibly impressed upon their memory. The history of the United States cannot be taught without mentioning it, and no teacher will mention it without inculcating in the youthful minds the overshadowing political truth contained in the solemn warning. Without fully grasping its import, the past cannot be really understood. On the other hand, however, the present is not understood, if one fails to see that, so far as this country is concerned, its applicability as a battle-cry is forever gone. In the meaning which it conveyed to their forefathers, it is for Americans, in the main, a thing of the dead and buried past. If the liberty of the people of the United States ever becomes endangered, it will be by themselves. We need not stop to ask whether there is anybody else who might like to do it.

* Oration delivered at the first Convocation of the University of Chicago, January 2, 1893.

for there is unquestionably no power on earth—neither without nor within—that could do it, if they be but true to themselves. And yet they could make no greater, no more portentous mistake than to think that they can with impunity assign the maxim to the political lumber room. It still holds good, and will never cease to do so. Only its meaning has become modified in consequence of their being themselves the only enemy to be dreaded. Yes, to be dreaded indeed; for an overbearing and tyrannical government can be overthrown and hostile armies can be conquered, but in a democratic republic the people are irresistible, for they are everything. Therefore eternal vigilance, constant watching of themselves, is indispensable, and the only way to watch themselves effectually is to interpret the maxim thus: Incessant work is the price of liberty.

Americans contend that popular government has stood the test in this country. All competent and fair-minded judges will concede that they have just cause to look back with patriotic pride upon the history of the United States; in other words that, taking all in all, the claim is well founded as to the past. If, however, the assertion is intended to mean that the past is in itself a sufficient guaranty as to the future, I for one am compelled to say: Beware! No greater danger to the ultimate success of popular government in this country is conceivable than the frame of mind from which such a claim would spring. I, too, have always been of opinion that the United States were sure to vindicate the cause of democracy in the future, as they have done in the past. To doubt it would be to despair of mankind, for it is unquestionable—whether we like it or not—that in the whole civilized world the future belongs to democracy, and in the United States democracy has in all essential respects a better chance, *i. e.*, more favourable conditions to work out the great problem successfully, than it ever can have anywhere else. But if I feel sure that the United States will not disappoint the hopes they have raised, it is solely because their whole history vouches for it that the American people will never become intellectually and morally so debauched as to make such an insane claim the bark on which they might venture to weather the storms of the future. Not because what they have achieved suffices, may we confidently look ahead, but because it warrants the expectation that they will go on growing, with their tasks, as they have done heretofore. He must be blind indeed, who does not see how much they will stand in need of that.

I should have studied the history of the United States to little purpose for twenty-five years, if I were to think lightly of what they have accomplished. But with growing knowledge, not only my admiration has

grown apace. The conviction has steadily grown upon me, and taken deeper root, that what they have done thus far have been but easy tasks in comparison to the problems in store for them. At first sight that may seem extravagant and preposterous, but reflection will, I think, compel all judicious observers to come to the same conclusion. The most careful scanning of the horizon does not reveal to my eye the smallest cloud which could be suspected the centre of an approaching cyclone. Not the slightest basis is offered for the apprehension that the American people will ever again be called upon to make a supreme effort, as when the Articles of Confederation were supplanted by the Constitution of the United States, or in the Civil War. But if history teaches one lesson more forcibly than another, then it is this, that a crisis, requiring supreme efforts, is not what states and nations have to fear the most. If it befall a people still possessed of vitality, it is always overcome, just because their very existence is at stake. The innermost depths are stirred up, all the intellectual and moral energies are whipped into activity and strained to the utmost, the people rise above themselves, and the threatened catastrophe ultimately proves to have been a true blessing in disguise. A nation, which has been intellectually and morally unequal to a great emergency, must have had the characteristics of the Hippocratic face stamped on its intellectual and moral life before the emergency arose. The crucial test of a people's vital forces is to obviate great crises by working out in a humdrum way the problems presented by its humdrum political and social life.

In the case of the United States these problems make demands upon the people, intellectually and morally, such as never have been made upon any people on the face of the earth. Everything the world has seen heretofore in this respect is, in comparison, dwarfed almost into insignificance. The unparalleled rapidity of their material development, as to wild territory brought within the pale of civilization, population, and wealth, the just boast of the past, is becoming a source of the greatest dangers for the future. Circumstances, with irresistible force, compel them to press onward with an intensity and impetuosity absorbing so much of the time, strength, and attention of the people, that it is next to impossible to attend to the perfection of what has already been achieved to the extent and in the manner it ought to be done. The child is already born that will live to see the day when the area of the present Union is inhabited by 120,000,000, to 150,000,000; and to make democracy work as well with a nation of 120,000,000, to 150,000,000, as it did with a nation of 60,000,000, is in itself no easy task. More than enough of elbow-room has been one of the main causes of the successes that have been thus far attained. This elbow-room rapidly diminishes from year to year,

not only by the growth of population, but also by that peculiar feature of modern economic life, the accumulation of enormous wealth in a few hands—individuals and corporations—with a tendency to crowd out or swallow up all small competitors. The social question bids fair soon to assume, in some respects, a more intricate and dangerous character than in the Old World, from the very reasons which have thus far allowed the United States barely to taste the bitter cup of which Europe has had to drink in deep draughts. On the one hand, the vastness of economic possibilities gives wider scope and greater vigour to the tendency to concentrate wealth, driving it more frequently to provoking excesses and, on the other, the masses are much more self-asserting and in every way better equipped for defence and offence in their warfare with capital. The dangers born out of these contests are aggravated by another tendency equally characteristic of our times: the concentration of population like that of wealth. This tendency, too, is in the United States comparatively stronger than anywhere else, and many reasons conspire to render it peculiarly prolific of difficulties and dangers. In Europe almost every city of importance has a history of many centuries, which can be made, and usually is, more or less, made a source of conservative force. The swarms of newcomers find a nucleus of old elements, which tradition, custom, and law co-operate to endow with sufficient power of assimilation. The disorganizing and disintegrating tendencies carried into the community by the inordinately large accretions from outside find an array of counter-tendencies, as it were, intrenched behind strong breastworks, which it is not easy to carry by assault and would require a long time to take by regular approaches. In the United States the cities whose origin dates back beyond the beginning of this century are almost wholly confined to the thirteen original States; in most of those that are situated in other parts of the country, somebody is still living who has seen them in their first infancy, while many of them vie or surpass in population and wealth countless European cities of renown. But with their astounding growth in wealth and population, the science and art of municipal government and the homogeneity of their population have not grown apace. This leads me to the last problem I shall notice especially—certainly more perplexing and, perhaps, more fraught with dangers than any other. The European cities receive their accretions, with imperceptible exceptions, from their own country. In the United States, the throngs flocking to the cities come, to a very considerable extent, from Europe. In addition to the tremendous tasks forced by the age of steam and electricity upon all civilized peoples, a mountain of the hardest and toughest problems is piled upon

the shoulders of a nation that, in a sense, is not a nation, urged on by its own temperament and, partly, compelled by the irresistible force of circumstances to accomplish in years what has taken nations, that were nations, generations and centuries to do. And wonderful, I am tempted to say, miraculous, as the assimilating power of the American people has thus far proved itself to be, it has of late become highly questionable whether it will not be worsted by what it is asked to do now, for it well-nigh touches the bounds of the impossible. Not the bulk, but the character of immigration is beginning to open an appalling vista into the future. Immigrants, who have little more in common with the people of the United States than the human shape and the most general features of human nature, thrown in solid blocks of hundreds and thousands into the country, coming with the set purpose to form and remain distinct communities within the community, not only unable, but unwilling to be assimilated politically or socially, intellectually or morally—that is a danger calculated to make every reflecting patriot blanch. Every such colony, whether it be in the large cities, in a mining town, or anywhere else, is a blow struck at the very vital roots of American democracy.

The list of knotty problems which the American people are imperatively called upon to solve is far from being exhausted. But I have said enough to prove that if they should be tempted, by their achievements of the past, to say with the rich man of the parable: "Soul, thou hast much goods laid up for many years: take thine ease, eat, drink, and be merry," they would inevitably receive the same answer: "Thou fool!" Nor can they rely upon that "reserve of force and patriotism," which Mr. Bryce declares "more than sufficient to sweep away all the evils which are now tolerated." If this reserve fund of force and patriotism were ten times as great as it is, with regard to these problems it would be of no avail, if it is thought that they can and will be satisfactorily dealt with, by drawing to a sufficiently large amount upon it when it has become an urgent necessity to do so. I say it again: by present appearances great crises are the least likely to occur. Now and then a squall, as another mad attempt of the anarchists and a great strike leading to the destruction of much property and the spilling of a good deal of blood, must, of course, be expected. Such disturbances, even if they rise to the dignity of a local civil war, will undoubtedly be suppressed. But what of that? Will thereby a single inch of ground be gained as to any one of the problems I have alluded to? No more than a delirious man is cured from his fever by being forced back into the bed after he has broken loose from his nurse and smashed the windows. No, the American people have to pay an infinitely higher price than some

bloodletting now and then would be, if they want to leave to their children, unimpaired, the heritage of American democracy left to them by their sires. Work—steady, indefatigable, thorough work—work of the brain inspired by the heart, and work of the heart directed by reason—nothing less will do.

Nothing less! Yes, and no higher price is conceivable. They must draw upon their reserve of mental and moral force; they must draw largely upon it, not, however, at long intervals, when great emergencies rise, but day for day, year in and year out, although days, months, and years glide by in sober sameness, without anything to stir up either head or heart to that deep emotion which always generates unwonted strength. Will they be equal to that? If they are, they will once for all make good everything they have ever claimed for democracy. Will they be? I unhesitatingly answer yes, although I am not prepared to concede that no question is admissible as to whether they are equal to it. But I am fully convinced that they can be made equal to it, and that to do this, all that is needed is to make them see how it can and, therefore, must be done.

To discuss to-day this question in all its manifold bearings is, of course, impossible. The evening, however, will have been well spent, if we all go hence fully convinced that it is our patriotic duty, jointly and individually, everyone in his place, to exert ourselves to the best of our ability, to get that lever forged to which I shall presently call your attention. It is but one of the many which must be applied; but in the course of time it will be found to be the most powerful of all.

Material prosperity cannot secure the future of the United States; nay, if material prosperity is not made by other agencies a source of strength, it must become a source of weakness, hastening and rendering more inevitable their ultimate downfall and ruin. That is the stern decree of the eternal moral laws governing the history of mankind. So it has been from the dawn of recorded history, and so it must remain to the end of the world, unless human nature should undergo a radical change. The American people, consisting of men and women, have no human nature of their own, constructed upon different ethical principles, and therefore there can be no exception in their favour. The name of no people that has played a part in the history of civilization has ever been wiped from the tablets of history, unless it had failed to do its duty by itself in its intellectual and moral life. The conqueror's sword, sweeping out of existence a civilized people, so as to make it permanently lose its distinctive entity, has always been the instrument executing the verdict rendered by its victim's sins of commission and omission. The fate of

states and nations has been laid in their own hands. They work out their destiny for weal or woe, for salvation or perdition, by growing apace with their material prosperity or falling behind it in their intellectual and moral life. If this be allowed to become stationary—as to activity, soundness, or elevation of the plane attained—decay is setting in. In all the respects named, it must grow better or worse; there is no third possibility.

Now, we have seen that the material development of the United States is going on at a bewildering rate, and that with it, at the same break-neck speed, a mass of problems of the first magnitude; and more complicated and difficult than any task ever imposed upon any other state, is crowding in upon the people. The logical conclusion is so plain that no child can fail to draw it correctly. In activity, soundness, and elevation of the plane, the intellectual and moral life of the American people must attain the very highest standard to prevent disaster falling upon them from the portentous clouds hovering over their future. Not merely a higher standard than the present one, or as high as that of this or that other people, but the very highest attainable. It is, however, an undeniable fact that, with regard to one of the principal agencies for the raising of the intellectual and moral standard, the United States are still lagging behind several of the leading nations of Europe. I do not say it as a reproach. I state a fact. I know full well the reasons why it is so, and I readily acknowledge that for these reasons it hardly could be otherwise. But I do not acknowledge that it need or may remain so. I most positively assert that the time has come when it can be changed, and, therefore, must be changed without further delay.

There is in the United States, as yet, not a single university in the sense attached to this word by Europeans. All the American institutions bearing this name are either compounds of college and university—the university, as an after-growth, figuring still to some extent as a kind of annex or excrescence of the college—or hybrids of college and university, or, finally, a torso of a university. An institution, wholly detached from the school work done by colleges, and containing all the four faculties organically connected with a *Universitas literarum*, does not exist.

The day, when it could be seriously asserted that the United States cannot afford to have such institutions, is surely past. A nation paying for pensions a sum considerably higher than the cost of the standing armies sucking out the life-blood of the European nations, not able to maintain universities—it is too absurd to deserve refutation. The other allegation, inherited from the past, that there is no need of such institutions in this "plain democratic" country, is deserving of a still severer

rebuff. Even if the universities are considered only as schools for imparting certain professional knowledge, it is a slur upon the American people, which I, though not to the manner born, shall never allow to pass uncontradicted. Count the American students going over to Europe, and those flocking to your own institutions coming, in this or that respect, nearest to the standard of European universities, and then tell me again there is no need, *i. e.*, no demand, for universities! I have not only visited, but lived in a number of countries, and the results of my observations of their higher educated youth is, that, though by no means as to knowledge, yet as to the earnestness, steadiness, and enthusiasm in the pursuit of knowledge, the American students stand first. And nature has not been in a stingy mood when weighing out their allotment of brains! Give them but the opportunities, and you will soon see whether they need to shun the comparison with the scholars of any other nation. They are handicapped in the race, handicapped in a way which makes the blood of a true friend of this country tingle with impatience. You are a proud people. Ay! Mount the steed of your pride, and press the spurs into his flanks till they quiver with pain. Be done, once for all and in every respect, with that nonsensical and humiliating prating about the "good average" being all the "plain democracy" needs or has any use for. No, I say, and again no! This nation of sixty-five million dare not assign to itself such an unworthy position. It has achieved too much in the past, and it must achieve too much in the future, to rest satisfied with excelling as to the average; if it does not strive with intent purpose to excel also in everything above the average, satisfied with nothing less than the best and the highest, it will and must fail. If democracy, because it rests upon the principle of equality, ought to retain, as much as it possibly can, the character of a plane—an elevated plane, but still a plane—then the sooner the world has done with democracy, the better. The preachers of this doctrine are the worst enemies of the masses, whose interests they pretend to champion. The most effectual way to lift the masses to a higher plane—materially, intellectually, and morally—is to do everything favouring the climbing up of an ever increasing minority to higher and higher intellectual and moral altitudes. Therefore universities of the very highest order become every year more desirable, nay, necessary for the preservation and the development of the vital forces of American democracy. Undoubtedly, to have them established is in the interest of those who would frequent them, but it is still infinitely more in the interest of the American people in its entirety.

This would hold good, even if the universities were but, as I said before, schools for imparting certain professional knowledge. If the

universities would furnish to the American people professionals of the order A, where they have thus far had to put up with the order B, and of the order B, where they had heretofore to be contented with the order C, I for one do not know of anything done by the American people rendering them unworthy of better service. Every American would consider it a gross insult if he were told he ought not to buy a coat of good cloth, because shoddy is amply good enough for him. Is it not a much worse insult to say Americans ought not to provide for obtaining the best professionals of every kind, for what the institutions of an inferior standard turn out will do very well for them? Nor is there any force in the argument that America has—especially in some branches, as for instance the law—many good professionals, and quite a number of excellent ones, who have never enjoyed the advantages of a first-class university. Might they not have reached a still higher round of the ladder if they had had those advantages? At all events, it is better to have 1000 than 10 good ones, and of 1000, 990 can acquire only with the help of superior advantages what 10 attain by dint of genius or extraordinary application. Nature's favourites stand much less in need of first-class universities than the indifferent many who, in universities as in every other walk of life, always constitute the great majority.

The imparting of certain professional knowledge is, however, by no means the only task of a university. In university teaching the *How* is of as much importance as the *What*, and in some essential respects much more important than the *How Much*. A university which merely turns out efficient professionals has done only one-third of its task. If, besides, a fair percentage of them has been made fit to become good independent scholars, half of its legitimate work has been done, but not more. Only if the whole intellectual and moral constitution of all has received for life the imprint of a true university education, has it accomplished what it must consciously and with set purpose strive for.

The university has not only, in the way of a college, to impart knowledge. It must also teach how additions to the treasury of knowledge are made. The teacher or the student must indeed be poor, never intended for anything but a hackney professional, if in this part of the instruction, the spark of enthusiasm, which ought to have been struck from the pupil's mind in imparting knowledge, is not made to kindle a flame whose light and warmth will influence his whole life. From week to week the mind's eye ought to be opened wider to the inspiring fact that knowledge is something infinitely higher than a ware and a trade, that it is a good, to be hungered and thirsted after for its own sake. And that is but the half-way house. The university of the students have not done their

whole duty, if the student does not carry from the halls of his *Alma Mater* the full consciousness into life that knowledge, because it is a good, is also a *sacred trust*.

These higher aims are better attained, the closer the methods of true university teaching are adhered to. Not drill, not training, but educating by guiding—guiding with a constant view to rendering independent, not only in technicalities, but in the first place, and above all, in thinking. Filter as many barrels and tanks full of facts and rules as you like into the student's memory; if you do nothing else, you will only produce new samples of Carlyle's *Professor Dryasdust* or Goethe's *Wagner in Faust*—quite useful men in their way, a kind of scientific brick carriers and mortar stirrers. But the university's business is to send forth architects, not, indeed, everyone fit to build palaces and cathedrals, but at least a weather-tight, comfortable, and cheery house, with plenty of light, air, and warmth—a good home for himself and an enviable resort for friends. To guide the students systematically to ever growing independence in thinking, is the only way to make him properly conscious that grave responsibility attaches to thinking, *i. e.*, that correct thinking is not only intellectually, but also morally a duty toward one's self and toward one's fellow-men. If that were better and more generally understood, the records of vain regrets in the lives of individuals and of nations would be reduced by more than one-half. And nowhere is there more need of it than in this democracy, where everybody is required to do his own thinking, not only for his private affairs, but also for the common affairs of all—in community, state, and nation. Independence in thinking and a lively sense of individual responsibility are the twin pillars on which the dome of democratic liberty rests. Fail to constantly strengthen them, while by the natural course of development the weight of the dome steadily increases, and it will come down with a terrible crash, crushing everything beneath it. Experience, however, teaches that the surest, if not the only way to propagate and invigorate independence in thinking and a lively sense of individual responsibility, is to grant a large measure of liberty. Where this truth is not recognized, in theory and in fact, with regard to university education, the vital principle of the true university is chained down, like the Prometheus of ancient mythology. Grant that by allowing a large measure of liberty—not only as to the *What*, but also as to the *How*, *When*, and *How Much*—part of the students will lay in a smaller stock of facts, rules, and technical training, than they would have done, if they had studied under the restraints of a system, closely resembling, in leading features, the systems deemed best adapted to the purposes of schools of a higher grade, principally

colleges. That is more than compensated by the advantages which only the freedom of true university education can secure. Only this can fan the burning coals of that enthusiasm which is absolutely untainted by any sordid motives into the intensest glow; only this can fully develop the inborn forces, for it alone allows full play in the use of them; only this provides sufficiently for the invaluable lessons taught by stumbling and tripping; only this incites to the development of distinctive intellectual individualities, casting off the dead weight, which to every aspiring mind lies in the consciousness of being moulded and pressed into shape according to some pattern cast in the notions of other people; only this systematically fosters the intellectual and moral grace required for striking out into new paths, for it methodically wars against that frame of mind, to which the jogging on in the old ruts seems as well an irreversible as a wise law of nature; this alone pursues with answering steadiness of purpose the ideal, to send forth intellectually fullgrown men and women, and not overgrown boys and girls, for a while more or less shaky and top-heavy under the cargo of wisdom they have had to take in; and, last but not least, this only can produce an adequate number of the kind of missionaries the country stands in need of.

This, in my opinion, is the weightiest among all the reasons requiring strenuous exertions for the speedy establishment of a goodly number of true universities. An ample number of more efficient professionals than the present average is highly desirable; but an ample number of men and women, thoroughly imbued with the spirit which true university education tends to awaken and strives to develop, becomes every year a more urgent necessity. Not as professionals will their greatest services be rendered to the people, but as citizens and fellow-men. The aims they pursue, their manner of pursuing them, the whole view they take of life and its problems, their way of tackling every question, cannot but work as beneficent leaven and good seed; for which a vast expanse of grateful soil is already prepared, from the palace of the merchant prince down to the block house of the pioneer. Ah, indeed, I agree with Mr. Bryce, there is a great reserve of force and patriotism in the American people; but it needs to be put into activity, not spasmodically, but systematically and according to the most approved methods, so as to assert itself with enduring steadiness and persistence in the daily life of the nation in all its relations. And one of the methods most approved by experience is to bring into full play the systematically trained sober second thought and the systematically trained idealism of the nation. To be the nurseries of trained sober second thought and of that genuine idealism which is not the opposite, but the comple-

ment of realism, that, however, is the main task of the true university. The universities must be and they will be, the nurseries of what Matthew Arnold calls "the remnant." Therefore you must have them, for although unquestionably there is already a "remnant" in the American people, Arnold very correctly says that everything depends upon the proportion the "remnant" bears to what he calls the "unsound majority." It can never be too large, and, in a democratic republic of such vastness and confronted by such a number of the most perplexing and portentous problems, it must be enormously large to insure the safety of the commonwealth. Sooner or later, it will be found to be not large enough, unless those who now constitute the "remnant" go to work in dead earnest to provide for educating, in the shape of university-taught professionals of every kind, missionaries, who, by their whole way of feeling, thinking, and acting, will, day in and day out, infuse the spirit of the "remnant" into the "unsound majority." If a chasm opens up between the "remnant" and the "unsound majority" and is allowed to widen, nothing can save this country. The "remnant" must not only greatly increase in numbers, while vigorously struggling up to ever higher planes, but it must, at the same time, be unremittingly intent upon filling up the gaps and lifting the majority out of any unsoundness. All these four purposes will be effectually furthered by establishing universities. It would be no easy task to point out a more patriotic and more truly democratic work. Everyone contributing toward it, with his money or with his work, may stand up before the American people in its entirety—remnant, and majority—inseparably bound together for weal and for woe, for better and for worse, and say to it, *Tua res agitur*. "It is *thy* cause I am contending for."

To cultivate kindness is a great part of the business of life.—*Dr. Johnson.*

Teachers should study to understand each pupil *as he is* and *as he ought to be*, and decide upon the best way to secure the *ought to be* out of the *is*.

Respect that sentiment in human nature that rebels at public reproof. So far as practicable, correct and reprove children quietly and individually.

Too much time is wasted in the study of non-essentials, observing insignificant features. The student who knows what to look for as the distinguishing characteristic has learned much.

UNIVERSITY OF MADRAS.

ELECTION OF FELLOWS BY GRADUATES OF THE UNIVERSITY.

The following rules relating to the above and approved by the Syndicate are published for information:—

1. Candidates for election as Fellows of the University of Madras shall be proposed and seconded by existing Fellows present at the Annual Meeting of the Senate, which during the current academical year will be held on Thursday, the 31st of August.

2. The names of candidates duly proposed and seconded (if eligible under paragraph 5 of G. O., dated 27th February 1893, No. 155, Educational, published in our April number, p. 230) shall be published in the *Fort St. George Gazette* in the month of September.

3. At the same time the qualifications of graduates entitled to vote shall be specified, and voters will be requested to apply to the Registrar for voting papers.

4. Each graduate entitled to vote shall give his vote for not more than two candidates. While a voter may vote for only one candidate, he shall not give more than one vote to the same candidate. Any voting paper containing the names of more than two candidates will be rejected.

5. A voter residing in Madras shall record his vote personally at the Senate House in the presence of two members of the Syndicate on a day and at an hour in November to be hereafter notified. A voter not residing in Madras and who is unable to attend at the Senate House in person shall fill in his voting paper in the presence of a Magistrate (not being a Village Magistrate), who will authenticate it with his signature and shall despatch it in a registered cover to the Registrar, so as to reach him not later than the day before that fixed for voting at the Senate House.

Gentleness without firmness is as bad as firmness without gentleness.

One may be sound enough in theory, but his practice may do his theory great injustice.

The educator should stand at the head of the "learned professions" as he does emphatically stand at the head of those who accomplish the greatest good to the greatest number.

AMERICO-INDIAN GEOGRAPHICAL NAMES.

THEIR HISTORICAL MEANINGS.

BY EMIL SEYTER, Ph. D.

A name often used, and, it is to be feared, scarcely ever understood is *Manhattan*. The original form of this word was *Mon-ah-tan-uc*, and it was the name of what now is known as the *Hellgate Whirlpool*. *Mon* has the sense of *bad, dangerous, or violent*; *at-tan* means *channel, stream*, and *uc* is the usual suffix denoting locality. The Indians living in that locality, the *Mon-ah-tans*, were the people "of the violent stream," the *Whirlpool*.

Massachusetts means 'the blue hills,' i.e., the land as seen from the sea through the bluish haze of the distance.

The names of some of the great lakes are very interesting too. *Ontario*, a word borrowed from the Wyandotte Indians, is composed of *on*, which is an abbreviation of *onondio*, i.e., 'a bill'; *tarak*, 'rocks standing in the water,' and *io* (or 'he-o') meaning 'beautiful.'

This latter word is also found in the name of the *Ohio* river, which is derived from the Mingo word *O-he-o*, meaning 'how beautiful!' The French correctly translated it by '*la belle rivière*.' A cognate form of the above-mentioned *tarak* is also found in the Mohawk term *Cadaraacqui*, by which this tribe designated Lake Ontario as well as the St. Lawrence river. Among the early Onondagas, Lake Ontario was known as *Oswego*.

Lake Erie, in ancient maps sometimes called '*Oskwago*,' derives its name from a tribe of Indians which at a remote time was either annihilated or else conquered and totally absorbed by the once powerful Iroquois.

Huron is not, as one might think at first, of Indian origin but comes, so Mr. Schoolcraft tells us, from the old French word *hure*, 'a wild boar.' The French settlers in their warfare with the Wyandottes or as they were formerly also called, the Yendats, called them '*les hures*' or '*hurons*' "wild boars", with reference to the bristly aspect of their headgear. Charlevoix informs us that his fellow-countrymen exclaimed at the first sight of these savages, '*Ah, quelles hurons!*'—"Ah, what boars!" After their struggle with the Iroquois, which ended by their overthrow they settled in Lake Huron. The Odjibwas called this lake *Ottawa*.

Michigan is derived from two words belonging to the Odjibwa-Algonquin idiom, i.e., *michi*, great or big, and *sagiegan*, lake. Lake Michigan is thus the 'great lake,' just as *Mississippi* is the 'great river,' *missi*

being the French adaptation of *michi* and *sippi* a corruption of *seepi*, i.e., 'river.' *Minnehaha*, 'the laughing waters,' is another Indian name of the Mississippi river.

An echo of the word *Sagiegan* is found also in *Allegan*, a town and county in Michigan, meaning the 'lake of the Algonquins.' *Algonac*, a beautiful village on the St. Clair river, is 'the place of the Algonquins,' *ac* (*uc*) denoting locality.

Niagara is a contraction of the Mohawk word *O-ne-aw-ga-ra*, i.e., 'human neck,' by which name the Mohawks designated the 'neck of water' connecting Lake Erie with Lake Ontario.

A strange word of Franco-Indian origin is *Arkansas*. The French encountering some Indian hordes of the Kansas tribe at the confluence of the Arkansas river with the Mississippi, armed with bows (in French *arc*), styled them *Arc-Kansas*.

Another curious word relic is *Chicago*. In the idiom of the Lake Algonquins it was called *Chicagowunzh*, which means "wild leek or onion."

Leaving the United States and entering the ancient empire of the Aztecs, Mayas, and Tarumare Indians we find a no less interesting field of research.

The ancient name of the Aztec country, and one which is still preserved in the appellation of one of its plateaus, was *Anahuac*, i.e., the 'country near the water' (the Aztec *all*, or simply *a*, stood for *water*). Their ancestors had migrated into Mexico in the twilight of prehistory.

Many are the traces of the old Aztec idiom still to be found in the language of the present inhabitants. In the Spanish speech of Nicaragua, for instance, words like *moyote* (mosquito), and *cicicote* (a red bird), are derived from the Aztec forms *moyatl*, and *chichiltic* (red) and *tototl* (bird). There is nothing astonishing, then, in the fact that the geographical nomenclature of this region should still be much pervaded by Aztec elements.

Guatemala, in Aztec *Quauhtemallan*, is a place of wood piles, from *quahuil*, wood, and *tema*, to pile up.

One of the most savage of Indian tribes was that of the *Chichimecs* which name was given to them by their oppressed neighbours as an opprobrium, for it is derived from the word *chichi*, a dog.

During one of their raids in 1064 they destroyed the city of Tula, whose inhabitants took to flight and founded the city *Cholulan*, which means the "city of the exiles."

Very rich in interesting names of localities is the Yucatan peninsula whose name itself is to this very day a puzzle to linguists. The most probable theory, however, seems to me the one which derives it from "Yuca-Tan," the land of the yuca plant, for beside the similarity between the two being exceedingly striking, the yuca is very common in the peninsula.

Yucatan is the region of some of the most gorgeous ruins human eyes ever beheld, and has of late excited the interest of the explorer and the archaeologist. There, in the midst of the tropical forest wilderness, lie buried cities with palaces and temples erected by a people extinguished to-day and mouldering side by side with the creations of their geniuses. One of the most important of these buried cities is Uxmal. In the neighbourhood of Uxmal is *Tolokh-eis*, the *holy mountain*.

In the mountains of Central America the traveller is often compelled to seek shelter for the night in lonely wayside houses called *Tambos*. These houses derive their name from a word of the Qquichua language, *tampu* meaning 'house of refuge.'

Pachacamac, once the sacred city of the Incas, now a wretched village of reed huts on the Pacific ocean, 20 miles distant from Lima, is the 'earth town'; for the word is composed of *pacha* (earth) and *cama* (created) from the verb *camani* (to create).—*Abridged from the School Journal, N. Y. and C.*

THE BEST TEN AMERICAN BOOKS.

The vote of *The Critic's* readers on the ten books which they regard as "the greatest yet produced in America, or by Americans," has resulted in the following choice, the figures printed before each name indicating the number of votes received:—

- 512. Emerson's Essays.
- 493. Hawthorne's "Scarlet Letter."
- 444. Longfellow's Poems.
- 434. Mrs. Stowe's "Uncle Tom's Cabin."
- 388. Dr. Holmes's "Autocrat."
- 307. Irving's "Sketch-Book."
- 269. Lowell's Poems.
- 256. Whittier's Poems.
- 250. Wallace's "Ben Hur."
- 246. Motley's "Rise of the Dutch Republic."

The number of persons who voted for anything of Emerson's—except his essays—was comparatively small; the case was the same with Long-

fellow's poems; very few ballots were cast for his single poems. With Emerson, however, it was different; for his poems, "Representative Men," etc., the vote was large. And for other works of Irving's than the "Sketch-Book" there was many a voice. Nor was Hawthorne's "Marble Faun" a bad second to the "The Scarlet Letter." Rearranging the author's names, therefore, according to the total number of votes cast for their various books, we have the following result:—Hawthorne, 643; Emerson, 545; Lowell, 535; Irving, 496; Longfellow, 488; Stowe, 437; Holmes, 417; Motley, 275; Whittier, 274; Wallace, 252.

The author missing from this list who came nearest to gaining entrance to it was Bancroft, whose "History of the United States" received 214 votes.—*Journal of Education (N.E.).*

INDIAN STUDENTS IN ENGLAND.

As the result of the Examination held at Lincoln's Inn Hall at the end of May, the Council of Legal Education awarded Pass Certificates to the following Indian gentlemen: *Inner Temple*—Bomonji Ratanji Bomonji, Framroz Muncherji Dadina, and Abdula Rahimtula Sayani. *Middle Temple*—Kamalkrishna Shelley Bonnerjee, Syed Motahhar Hussain, Syed Nehal Hussain, Sardar Abdul Rahman Khan, and Arjan Singh. *Gray's Inn*—Hakim Aminuddin, and Ernest P. Ghosh. A Certificate of Honour was awarded to Manmohan Lal Agarwala, *Inner Temple*.

The following passed in Roman Law: *Middle Temple*—Syed Sharfuddin Ahmad, Syed Mahomed Bilgrami, Satish Ranjan Das, Nand Kishore Kacker, Syed Hamayon Mirza, and Goonce Lal Shaw. *Lincoln's Inn*—Nanaji Sidram Sinde.

Calls to the Bar on June 14th: *Lincoln's Inn*—Pundit Mul Raj and Pundit Mohan Lal. *Inner Temple*—Shaikh Mahomed Abdul Zafar and Syed Khelafat Hussain. *Middle Temple*—Syed Nehal Hussain, B.A., Cambridge University; Kamalkrishna Shelley Bonnerjee, B.A., Oxon; Nanabhoy Nowrojee Burjorjee; Sardar Abdul Rahman Khan, St. George's College, Mussoorie, India; Prabhu Das Singha, Todar Mal Bhandari, Syed Motahhar Hussain, Caius College, Cambridge. *Gray's Inn*—Ernest P. Ghosh, A.Sc. (Dunelm); and Hakim Aminuddin.

In the Mathematical Tripos, University of Cambridge, Devendra Nath Mullick, St. Peter's College, passed in Class II., Division 2. In the Moral Sciences Tripos, P. K. Nambiyar, St. John's College, passed in Class III., Division 1. In the Law Tripos, Part I., Sahebzada Sultan Ahmad Khan and Tulsidas Jeysinghbai, both of Christ's College, passed

in Class III. In the Law Tripos, Part II, F. X. D'Souza, St. John's College, passed in Class I. In the Previous Examination, Part I, S. Asghar Ali, Christ's College, passed in the Second Class; R. S. Powyalu and N. N. Saher, both of St. Catherine's College, in the Third Class. In the Previous Examination, Part II, D. U. Parekh, Non-Collegiate, passed in the Second Class; G. R. Geria, Non-Collegiate, in Third Class, and P. H. J. Rustomjee in the Fourth Class. In the Additional Subjects (Mechanics)—Rām, Non-Collegiate, passed in the Second Class.

At St. John's College, Cambridge, A. K. Cama and F. X. D'Souza have been elected to foundation scholarships.

Nowroji Merwanji Tarachand, Grant Medical College, Bombay, and Middlesex Hospital, and Runchhoddas Purmananddas Vorah, Grant Medical College, Bombay, have been admitted Licentiates of the Royal College of Physicians of London.—*Ind. Mag. and Review*.

O-U-G-H.

Let the school teacher write in a column on the black board the words *plough, through, cough, hiccough, rough, though, lough*. Then read the above verses to the class, pointing to each of the written words as he comes to it, and pronouncing it as the puzzled Frenchman did. The moral will be as obvious as the mirth, and a difficult spelling lesson will be learned incidentally.

I'm taught p-l-o-u-g-h

"Shall be pronounced 'plow,'"

"Zat's easy ven you know," I say.

"Mon Anglais I'll get through."

My teacher say zat in zat case

O-u-g-h is "oo."

And zen I laugh and say to him,

"Zecs Anglais make me cough."

He say, "Not coo, but in zat word

O-u-g-h is 'off.'"

"Oh, sacre bleu! such varied sounds

Of words make me hiccough!"

He say, "Again, mon friend oes wrong!"

O-u-g-h is 'up,'

In hiccough." Zen I cry, "No more,

You make my throat feel rough."

"Non! non!" he cry, "you are not right—

O-u-g-h is 'uff'"

I say, "I try to speak your words,

I can't prononz zem though!"

"In time you'll learn but now you're wrong.

O-u-g-h is 'owe.'"

"I'll try no more. I sall go mad.

I'll drown me in ze lough!"

"But ere you drown yourself," said he,

O-u-g-h is 'ock.'"

He taugt no more! I held him fast!

And killed him wiz a rough!"

—Chas. Battell Loomis.

OUR PRIZE COMPETITIONS.

ENGLISH PARAPHRASE.

The Editor desires to remind intending candidates that the 20th instant is the latest day on which the new paraphrases of *Crossing the Bar* will be received for this month's competition.

MAP-DRAWING.

(Conducted by Mr. A. E. Duchesne, B.A.)

Altogether 11 maps were received. Of these, one was too late, two were of Great Britain and not of the British Empire, and eight were left in for the competition.

The standard of attainment was considerably lower than at the last competition. The outlines were extremely inaccurate, the printing of names was in most cases very poorly done, and the colouring very crude and blotchy. Competitors who are not skilful should refrain from surface washes of colour, which can only be successful in practised hands, and should limit themselves to colouring outlines and borders.

The prize is awarded to S. R. Krishnan of the Senior F. A. Class Hindu College, Tinnevely, who obtains 27 out of a possible 50.

Proxime accesserunt:—T. Kuppuswami Chetti, and K. D. Subrahmanya Aiyar, both from the Commercial School, Madras.

Life is made up, not of great sacrifices or duties, but of little things in which smiles and kindnesses and small obligations, given habitually, are what win and preserve the heart and secure comfort.

LOWER SECONDARY EXAMINATION.

NOTIFICATION.

Ootacamund, May 22, 1893.

No. 43.—The following notification is published for general information in supersession of the notification dated 14th January 1891, published at pages 42 to 44, Part I of the *Fort St. George Gazette* of the 20th January 1891 :—

NOTIFICATION.

1. An examination to be styled the Lower Secondary Examination shall be held annually in the several subjects hereinafter mentioned, beginning on the first day of December, or, should that date fall on a Sunday, on the second day. It shall be held at such places as may from time to time be notified.

2. The examination is primarily intended to be a leaving certificate examination for Lower Secondary education; but it may serve also to test the eligibility of pupils of the Seventh Standard or Third Form for results grants, and the general education qualifications of candidates for Lower Secondary Teachers' certificates.

3. The examination shall be under the control of the Commissioner for the Uncovenanted Civil Service Examinations, and shall be conducted according to such instructions as he may issue to examiners appointed by him for the purpose.

4. The examination shall be open to :—

i. Pupil Candidates—

- (a) All pupils of the Third Form of recognized schools for general education, and
(b) all pupils belonging to schools or classes recognized as affording instruction in any of the subjects of the Elementary Technical Examinations.

Unless specially exempted by the Commissioner from so doing, each candidate must forward with his application a certificate signed by the Headmaster of the school he is attending at the date of application, to the effect that he has completed the course of instruction prescribed for Lower Secondary or for Technical Schools, as the case may be, and that he has attended a recognized school from the commencement of the school year in which he applies.

ii. Other Candidates.—All persons who are certified not to be pupils of any school, and whose age, it is certified, will not exceed 25 years at the date of examination.

Note.—The restriction in regard to age shall not apply to teachers of recognized schools, nor to persons in the service of Government or Local Boards, nor to female candidates.

Subjects of examination. 5. The subjects of examination shall be as follows :—

I. Compulsory Subjects.

1. First Language.
2. Arithmetic.
3. Geography.
4. History of India.

II. Optional Subjects.

1. Elementary Science.
2. Second Language.
3. Needlework, Plain and Fancy.
4. History of Great Britain and Ireland.
5. Domestic Economy.
6. Geometry and Algebra.
7. Any of the subjects of the Elementary Technical Examinations.

6. The examination in the compulsory subjects and in optional subjects 1 to 6 shall, as far as possible, be in accordance with the courses of instruction and standards of examination laid down in section V of the Madras Educational Rules. The examination in the subjects embraced in the Elementary Technical Examinations shall be in accordance with the provisions of the notification regulating the Government Technical Examinations.

7. Candidates may bring up as their first language any of the languages mentioned in the notification except Sanskrit, Persian, Arabic, Latin, French and German; and as their second language any of the languages except English; but Hindu and Muhammadan female candidates may if they choose bring up English as their second language. No candidate bringing up Vernacular as first language shall be allowed to bring up another Vernacular language in the same year.

Note.—Hindu and Muhammadan female candidates who bring up English as a Second Language will be required to undergo the test as prescribed for English under First Language.

8. The scope of the examination in each subject shall be as hereinafter specified :—

FIRST LANGUAGE.

(English, Tamil, Telugu, Canarese, Malayalam, Uriya, and Hindustani.)

(a) Grammar and Language.

Grammar.—Exercises on orthography, etymology, and syntax; on the formation of nouns, verbs, adjectives and adverbs; and on the analysis of simple, compound and complex sentences.

Language.—The meaning of words, phrases and idioms, with illustrations of their uses; meaning of sentences; framing of simple sentences to introduce correctly common words, phrases, or idioms with which pupils of the Seventh Standard may be expected to be familiar; easy exercises on the expansion, contraction and transformation of sentences; explanation of metaphors and similes.

(b) Writing and Spelling.

Writing.—To transcribe in small hand from a given printed or lithographed paper.

Spelling.—To write to dictation a prose passage from a newspaper, or magazine, or book not more difficult than any of the approved Standard Readers.

(c) Composition.

To write a letter on a given subject, or a narrative of some well-known event, or a description of some familiar place.

ARITHMETIC.

The compound rules bearing on Indian and English money, on the weights and measures of length and capacity used in the Presidency, on Indian imperial weights and measures of length and capacity, on English time, on English linear, square and cubic measures, and on Avoirdupois weight; Simple Proportion or Rule of Three; Compound Proportion; Practice; Simple Interest; Averages and Percentages; Simple Problems.

GEOGRAPHY.

- (a) Circumstances which determine climate.
- (b) Outlines of general Geography as in any approved book. The Geography of India as in any approved book.
- (c) Map drawing. To insert the chief physical features of any continent (including Australia) or of any great country in Europe or Asia on an outline map. To draw the outline of any continent, or of any great country in Europe or Asia.

HISTORY OF INDIA.

The outlines of the History of India to the present time, with such a knowledge of geography as is necessary for the intelligent study of the subject.

ELEMENTARY SCIENCE.

A knowledge of the simpler kinds of physical and mechanical appliances, such as the thermometer, the barometer, the pulley, the wheel and axle, the spirit level; also, of the air-pump, the common pump, Bramah's press, the fire engine and the syphon.

SECOND LANGUAGE.

Section A.—Tamil, Telugu, Canerese, Malayalam, Uriya, and Hindustani.

Section B.—Sanskrit,* Arabic, Latin, Persian, French, and German.†

(a.) Grammar and Language.‡

For section A.—As prescribed for the first language.

For section B.—As follows:—

Exercises on etymology and syntax as treated in any approved elementary grammar; the formation of nouns, adjectives and adverbs; and the analysis of easy sentences.

[For Latin.—Declension of regular nouns, adjectives, and pronouns; regular and irregular comparison of adjectives; conjugation of regular verbs in the active and passive voices, and of deponent and anomalous verbs; principal parts of irregular verbs; easy numerals; concords and government by prepositions; and the common rules of syntax as contained in any approved grammar.]

(b) Writing and Spelling.

Writing.—As prescribed for the first language.

Spelling.—As prescribed for the first language.

(c) Translation.

(1) To translate into the first language a passage of equal difficulty to the portions studied in any approved Standard Reader.

(2) To translate from the first into the second language ten lines of narrative from any approved Standard Reader.

NEEDLEWORK.

(a) Plain Needlework.

(For European Girls.)

(1) To cut out from a pattern and show ability to make a night-dress of full size and showing superior work in running and felling, backstitching, gathering, setting on of band, and button-hole, with a yoke and tuck fronts.

(2) To patch on old cloth very neatly.

(3) To darn on old cloth or stocking very neatly.

(For Native Girls.)

(1) To cut out from a pattern or by measurement, and to show ability to make a native man's underjacket, showing superior work in backstitching and hemming, setting on of neckband and pocket, and button-hole.

(2) To patch on old cloth neatly.

(3) To darn on old cloth neatly.

(b) Fancy Needlework.

(For European and Native Girls.)

(1) To make finely and neatly a finished article, such as a bag, sock or scarf.

(2) To mark letters finely on fine cloth.

HISTORY OF GREAT BRITAIN AND IRELAND.

The outlines of the History of Great Britain and Ireland to the present time with such a knowledge of geography as is necessary for the intelligent study of the subject.

DOMESTIC ECONOMY.

(For Girls.)

As in any approved book.

GEOMETRY AND ALGEBRA.

(1) Geometry.—Euclid, Book I, with very easy deductions.

(2) Algebra.—The four simple rules.

* In the Devanagari character.

† In the Gothic character

‡ When French or German is brought up, the answers must be in the language brought up.

9. The examination shall be conducted in the order of time and subjects shown in the following table, subject to any changes it may be found necessary to make in the arrangements for the last three days; and the number of marks assignable to each subject, or sub-division of a subject, shall be as therein specified.

Days.	Hours.	Subjects.	Marks.
First day...	10 A.M. to 12 noon	Grammar and Language (English)	60
	12 noon to 12.30 P.M.	Spelling (do.)	10
	12.30 to 1 P.M.	Writing (do.)	10
	2 to 3 P.M.	Composition (do.)	20
	3 to 5 P.M.	Geography	100
Second day	10 A.M. to 12 noon	Grammar & Language Vernaculars	60
	12 noon to 12.30 P.M.	Spelling (do.)	10
	12.30 to 1 P.M.	Writing (do.)	10
	2 to 3 P.M.	Composition or Trans. § (do.)	20
	3 to 5 P.M.	History of India	100
Third day	10 A.M. to 12 noon	Arithmetic	100
	12 to 2 P.M.	Elementary Science	100
	3 to 5 P.M.	Geometry and Algebra	100
Fourth day	10 A.M. to 12 noon	History of Great Britain & Ireland	100
	12 to 2 P.M.	Domestic Economy	100
	10 A.M. to 12 noon	Grammar and Language, Sanskrit, Persian, Arabic, Latin, French, German	60
Fifth day...	12 noon to 12.30 P.M.	Spelling (do.)	10
	12.30 to 1 P.M.	Writing (do.)	10
	2 to 3 P.M.	Translation (do.)	20

NOTE.—Superintendents will arrange for the examination in Needlework according to the optional subjects that may be brought up by female candidates, allowing four hours for Plain Needlework and two hours for Fancy Needlework. Seventy marks shall be allotted to Plain Needlework and thirty to Fancy Needlework.

10. Candidates may come up for the compulsory subjects alone and enter for the optional subjects at subsequent examinations, but no candidate shall, except as provided in the notification for the Government Technical Examinations, be admitted to the examination in any of the optional subjects alone until he has passed in the compulsory subjects, and no candidate shall be considered to have passed the Lower Secondary Examination until he shall have passed in all the compulsory subjects and in any two of the optional subjects.

Minimum for passing in compulsory subject. 11. No candidate shall be allowed to pass in the compulsory subjects who fails to obtain—

35 per cent. of the marks in First Language,
30 do. do. in Arithmetic,
25 do. do. in Geography,
25 do. do. in the History of India, and
33 do. of the total aggregate marks for all the compulsory subjects.

A candidate failing in any one of the compulsory subjects shall be considered to have failed completely in the compulsory portion of the examination, and must undergo examination again in all the compulsory subjects.

12. No candidate shall be allowed to pass in any of the optional subjects (Nos 1 to 6 inclusive) who fails to obtain 33 per cent. of the maximum marks for the subject; nor in any of the subjects of the Elementary Technical Examinations who fails to obtain the marks laid down in the syllabus.

§ Composition, if the Vernacular is brought up as first language; Translation, if it is brought up as second language.

PANJAB UNIVERSITY.

Examiners for the Oriental Faculty Examinations, 1893.

ENTRANCE EXAMINATION.

Subjects.	Papers.	Names of Examiners.
Sanskrit	(a)	Pandit Hari Kishen, Kaul, M.A., Assistant Commissioner, Rupar.
"	(b)	S. R. Bhandarkar, M.A., Asst. Registrar, University, Bombay.
Arabic	(a)	Maulvi Ahmad, Calcutta Madrasa, Calcutta
"	(b)	S. Amjad Ali, M.A., Muir Central College, Allahabad
Persian	(a)	Maulvi Abul Khair Md. Siddiq, M.A., Dacca Madrasa, Dacca.
"	(b)	Major Henry Saddler, Pol. Supdt., Jhalawar State, Rajpootana.
Urdu	(a)	Shams-ul-Ulama Munshi Zakauallah, Delhi.
"	(b)	Pandit Lakshmi Shankar, M.A., Inspector of Schools, Benares.
Hindi	(a)	
"	(b)	

INTERMEDIATE EXAMINATION.

Sanskrit	(a)	G. Thibaut, Esq., Ph.D., Muir Central College, Allahabad.
"	(b)	S. R. Bhandarkar, M.A., Asst. Registrar, University, Bombay.
Arabic	(a)	Maulvi Shams-ul-Huda, M.A., 23, Ripon Street, Calcutta.
"	(b)	Major Henry Saddler, Pol. Supdt., Jhalawar State, Rajpootana.
Persian	(a)	M. Abul Khair Md. Siddiq, M.A., Dacca Madrasa, Dacca.
"	(b)	Major Henry Saddler, Pol. Supdt., Jhalawar State, Rajpootana.

B. O. L. EXAMINATION.

Sanskrit	(a) and (c)	M. M. Pt. Mahesh Chandra Nyayaratna, Sanskrit College, Calcutta.
"	(b)	G. Thibaut, Esq., Ph. D., Muir Central College, Allahabad.
Arabic	(a) and (c)	Maulvi Zia-ud-din Khan, S.U., K.B., E.A.C., Gurgaon.
"	(b)	Maulvi Md. Shibby, M. A. O. College, Aligarh.
Persian	(a) and (b)	Maulvi Md. Shibby, M. A. O. College, Aligarh.
"	(b)	Mozida M. Muhammad Hussain, M.A., District Judge, Mooltan.

M. O. L. EXAMINATION.

Arabic	1st 3 papers	Maulvi Zia-ud-din Khan, S.U., K.B., E.A.C., Gurgaon.
"	Last 3 papers	S. Amjad Ali, M.A., Muir Central College, Allahabad.

13. A candidate who passes in the compulsory subjects but fails in one or two optional subjects shall not be required to undergo examination again in the compulsory subjects, but, to complete the test, shall be required to pass in one or in two optional subjects only, as the case may be.

14. A candidate who brings up both compulsory and optional subjects at the same examination, and who fails in the former, but passes in any of the latter, shall be allowed to count his success in the optional subjects in which he passed, when he comes up again in the compulsory subjects.

15. Candidates who have passed the Lower Secondary Examination shall be ranked in two classes; the first consisting of those who have obtained not less than 60 per cent., and the second consisting of those who have obtained not less than 33 per cent. of the aggregate number of marks for the compulsory and two optional subjects. Only those candidates who pass in the first class shall be arranged in the order of merit.

16. Candidates who have passed the Lower Secondary Examination may come up again in any additional language and in any one or more of the optional subjects in which they may not have already passed.

17. Subject to the restrictions imposed by the time table, a candidate may bring up along with the compulsory subjects as many optional subjects as he chooses; but for the purpose of determining the class in which he is to be ranked, only the marks obtained by him in two subjects shall be allowed to count towards the aggregate, provided he has passed in those two subjects.

18. The results of the examination shall be published in the *Fort St. George Gazette*, in three statements—

(1) Statement A, giving the names and other particulars of those who, having passed in all the compulsory subjects and in two optional subjects, are to be considered as having passed the Lower Secondary Examination.

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

(3) Statement C, giving the names and other particulars of those who have passed in optional subjects only.

19. Certificates shall be issued by the Commissioner to candidates who have passed in full the Lower Secondary Examination, specifying the candidate's first language, the optional subjects in which he passed, and the class in which he was placed.

20. Application for admission to the examination shall be made on printed forms to be had at the office of the Commissioner and at all Government Treasuries. These applications should reach the office of the Commissioner not later than the 15th August.

21. The following are the fees to be paid for admission to the examination:—

For all the compulsory subjects Rs. 3
For each optional subject " 1

22. The Commissioner may arrange to hold the examination in Native States, if the Governments concerned desire it; provided that they undertake to bear all local expenses and arrange for the proper supervision of the examination, and that the schools sending candidates are 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. A list of the places at which it is desired the Examination should be held should be furnished to the Commissioner not less than six months before the date fixed for the examination.

[The first examination under this Notification will be held in December 1893.]

J. F. PRICE,
Chief Secretary.

Examiners for the Oriental Titles Examinations, 1893.

Sanskrit.

Shāstri Examination	... First 3 papers	M. N. Dvidevi, Esq., M.A., Nadiad, Gujrat, Bombay Presidency.
" "	... Last 3 "	Pandit Rāja Rām, Elphinstone College, Bombay.
Visharada "	... First 3 "	Bābu Rajendra Chandra, Shāstri, 31, Tarak Chatterjies Lane, Calcutta.
" "	... Last 3 "	M. N. Dvidevi, Esq., M.A., Nadiad, Gujrat, Bombay Presidency.
Prajna "	... First 3 "	Pandit Rāja Rām, Elphinstone College, Bombay.
" "	... Last 3 "	Bābu Rajendra Chandra, Shāstri, 3, Tarak Chatterjies Lane, Calcutta.

Persion.

Munshi Fāzil	... First 3 papers	Shams-ul-Ulama Munshi Zakaullah, Delhi.
" "	... Last 3 "	Maulvi Abbās Hussain, M. A. O. College, Aligarh.
Munshi Alim	... First 3 "	S. Amjad Ali, M.A., Muir Central College, Allahabad.
" "	... Last 3 "	Shams-ul-Ulama Munshi Zakaullah, Delhi.
Munshi	... First 3 "	Maulvi Abbās Hussain, M. A. O. College, Aligarh.
" "	... Last 3 "	S. Amjad Ali, M.A., Muir Central College, Allahabad.

Arabic.

Maulvi Fāzil	... First 3 papers	Maulvi Zia-ud-din Khān, S.U., K.B., E.A.C. Gurgaon.
" "	... Last 3 "	Maulvi Lutfulla, M. A. O. College, Aligarh.
Maulvi Alim	... First 3 "	Maulvi Zia-ud-din Khān, S.U., K.B., E.A.C. Gurgaon.
" "	... Last 3 "	Maulvi Ahmad, Calcutta Madrassa, Calcutta.
Maulvi	... First 3 "	Maulvi Lutfulla, M. A. O. College, Aligarh.
" "	... Last 3 "	Maulvi Ahmad, Calcutta Madrassa, Calcutta.

Urdu.

High Proficiency in Urdu	... Shams-ul-Ulama Munshi Zakaullah, Delhi.
Proficiency in Urdu	... Ditto ditto.

Hindi.

Proficiency in Hindi	... Pandit Lakshmi Shankar, M.A., Inspector of Schools, Benares.
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Panjabi.

High Proficiency in Panjabi	... Pandit Bhanu Datta, Government Central Model School, Lahore.
Proficiency in Panjabi	... Pandit Bhanu Datta, Government Central Model School, Lahore.

Pashlo.

Proficiency in Pashlo	... Qāzi Tila Muhammad, Honorary Magistrate, Peshāwar.
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INDIAN NOTES.

The Dayanand Anglo-Vedic College, Lahore, has now opened a B.A. Class.

Mr. J. Cook, M.A., Principal, Central College, Bangalore has returned to his post from furlough in Europe.

The Annual Meeting of the Senate of the University of Madras will be held this year on Thursday, 31st instant.

Dr. W. H. Wilson, Professor of Chemistry, Presidency College, Madras, has returned from his short vacation in Europe.

The Rev. W. W. Holdsworth, M.A., who has been the Principal of the Wesleyan Mission High School, Mysore, for over six years, will soon go home on furlough.

An Assistant teacher and five students have been expelled from the Aitchison Chiefs' College, Lahore, for preferring false charges against the Headmaster.

We learn that the Staff of the Sarah Tucker Institution, Palamcottah, is to be strengthened next November by the arrival of a lady graduate from England.

Mr. M. Rangachariyar, M.A., who was recently acting as Professor of Chemistry in Trivandrum College, has severed his connexion with the Travancore State and returned to Madras.

The Rev. W. Miller, M.A., D.L.D., C.I.E., Principal, Madras Christian College, has been elected by the University of Madras to represent that body on the Madras Legislative Council.

The next Written Examination for Teachers' Certificates in Madras will be held on Monday and Tuesday the 27th and 28th November 1893, and applications will be received up to 30th September.

The Bombay Government has sanctioned the resolution of raising the Examination fees passed by the Senate of the Bombay University. The enhanced fees will come into operation from this year.

Mr. William Weston, M.A., who has been appointed to succeed the Rev. A. S. Laidlaw at the Madras Christian College is an Aberdonian graduate of some years standing, and took First Class honours in Philosophy.

* * *

Babu Haran Chandra Banerjee, M.A., who stood 2nd in First Class in the M.A. Examination of 1886, has been appointed Professor of Mathematics in the Ripon College. He is the eldest son of the Hon'ble Justice Gurudas Banerjee.

* * *

The Rev. A. S. Laidlaw, M.A., B.D., recently Professor at the Madras Christian College, who some time ago went home on furlough, has just been appointed Minister at Huntly, Aberdeenshire, and consequently severed his connexion with India.

* * *

His Excellency the Right Honourable Lord Wenlock, G.C.I.E., has consented to become the Patron and His Highness Nawab Azimjahi Muhammad Munawar Khan Bahadur, Prince of Arcot, the Vice-Patron, of the Board of Muhammadan Education, Madras.

* * *

The next Practical Examination for Teachers' Certificates in Madras will commence on Monday the 4th September 1893 at the Teachers' College, Saidapet, and applications for the same will be received by the Secretary to the Board of Examiners up to 10th August.

* * *

Only two pupils appeared for the recent Higher Examination for Women from St. Philomena's High School, Bellary, and both have passed in the first class. This school is under the management of the nuns of the Good Shepherd Convent, who are to be congratulated on their excellent results.

* * *

The Rangoon College and Collegiate school, the Government High School at Moulmein, and the Government Normal School at Moulmein, are the only Government Institutions in the Province of Burma. All the others are under either Municipal or private management but are aided by Government.

* * *

We learn that His Highness the Maharajah of Travancore has sanctioned a grant of Rs. 5,000, in addition to the usual Rs. 5,000, per annum to be utilized as Grants for Elementary education in different parts of the country, from which applications have been forwarded to the Government.

* * *

The University of Bombay has elected Mr. Javerilal U. Yajnik as its representative on the Bombay Legislative Council. Of the three candidates in the field, Mr. H. C. Kirkpatrick, Barrister-at-Law, stood second, and Mr. Jamsetji P. Kapadia, third. We congratulate the University on the wise choice it has made.

* * *

Mr. Devendra Nath Mullick, B.Sc. (London) and B.A. (Cantab), the second Bengali Wrangler, is expected to return home almost immediately. He has accepted an appointment in the superior Grade of the Bengal Educational Service. Mr. Mullick, like the first Bengali Wrangler, Mr. A. M. Bose, is, we understand, a member of the Brahmo community.

* * *

A handsome new Girls' School, called "The Upper Clapton School," built at a cost of Rs. 6000, was opened last month in Tinnevely. The cost of the new building has been defrayed by Miss Rutton of Upper Clapton, England; and the institution is under the management of the Church of England Zenana Mission, of which Miss Askwith is the senior member in the Tinnevely district.

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The members of the "Peace Association" will this year award a silver medal called the "Vidyasagar Medal" to the lady-writer of the best essay in Bengali on the subject of the "Domestic Duties of a Hindu Woman." Papers will be examined by Babus Chandranath Basu and Rajani Kania Gupta. All papers are to be sent to the Secretary, Babu Probodh Prokas Sen Gupta, M.A., 34, Serpentine Lane, Calcutta.

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At a meeting of the Panjab University Senate held last month, the Hon. Mr. W. H. Rattigan, M.A., LL.D., Vice-Chancellor, in the chair, a long and animated discussion took place with regard to the proposal to exclude the *Rig Veda* from the B. A. Sanskrit course. The Vice-Chancellor contended that the inclusion of the hymns was necessary for the proper standard of examination, and that it did not keep candidates from appearing. This view was finally adopted.

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Mr. F. X. D'Souza, B.A. (Madras), lately of St. Joseph's College, Trichinopoly, and now of St. John's College, Cambridge, passed into the Covenanted Indian Civil Service at last year's open competitive examination. He is now equal second in First Class in Part II. of the recent Law Tripos at Cambridge. This is said to be the highest place yet taken by a native of India in an English University Honours Examination. Mr. D'Souza has also been elected to a Foundation Scholarship in his College in Cambridge.

The students of the lower subordinate class at the Engineering College, Rārki, have 'struck work,' and in a body left the institution. This action is attributed to a recent *fist* of the Principal of the College, who has ruled that henceforth the students themselves should do their college surveys, without the usual assistance from the *khalasis*. Rather than put up with the annoyance of dragging the chain, carrying their implements, pegs, rods, etc., the students decided to leave the college in a body.

As subscriptions amounting to over Rs. 260 have already been received by the E. and A. I. Association, Madras, towards its Special Education Fund, Rs. 120 are to be sent respectively to the Principals of the Doveton and St. Mary's Colleges, for 2 Scholarships of Rs. 10 each, one in each College, tenable for a year for students studying in the F.A. Class. The award will be made under conditions to be specified hereafter. The Scholarships are to be called "The South India Eurasian and Anglo-Indian Association Scholarships."

We learn with pleasure that a large majority of Indian students for the English Bar, resident in London, having memorialized the Council of Legal Education in regard to introducing Hindu and Muhammadan Law as one of the subjects to be selected at the option of the law-student, three of the four Inns of Court have assented to the Council's acceding to the request in the memorial. On receiving the assent of the only remaining Inn, Hindu and Muhammadan Law will, at no distant date, form part of the present curriculum of studies for call to the English Bar.—*Ind. Mag. and Review*.

It will be of interest to Indian students to know that the question of undergraduates' expenses at Oxford and Cambridge has been recently discussed in the English Press. Some critics have arrived at the calculation that the average annual expenditure per man is £200, and have concluded that the doors of the Universities are therefore closed against the poor man. Some very sensible letters were written proving that it is quite possible to live at these Universities and attain such a high social position as that of President of the Union on £150 per annum. Life can even be supported on £70.

We greatly regret to announce the death on Monday, 17th July, of the Rev. A. Walsh, M.A., Principal, St. Mary's College, Madras. The death was accidental and probably due to somnambulism. Father Walsh was very popular in Madras, and a Committee has been formed to devise suitable means of perpetuating his memory. The

Collego has now been placed under the management of the Society of the Brothers of St. Patrick, a teaching order of monks whose head-quarters are at Mountrath in Ireland. A contingent of specially qualified Brothers is shortly expected from home to enter upon their new duties.

We are extremely pleased to announce that Mr. P. Kelunni Nambiyar, who went to England with the primary object of being called to the Bar, has passed with honours the B.A. Degree examination of the Cambridge University. Mr. Nambiyar belongs to an aristocratic Nair family of Ponnani taluk, and is the son of a Nambudri Brahmin. The example set by the Nambudri, at considerable expense, of educating his son in England in the teeth of strong opposition from the votaries of caste and kindred prejudices is indeed highly commendable, and we sincerely hope that many will follow in his wake in this respect.—*The Malabar Spectator*.

The Muhammadan Education Committee appointed by Lord Wenlock for the Madras Presidency has submitted its report. Mr. Muhammad Meeran Sahib, B.A., has been appointed an Assistant Secretary to the Committee. Mr. Sultan Mohidin Sahib, Tahsildar of Dindigul, is the Honorary Secretary, and Mr. C. S. Crole, C.S., is the President. The following are some of the recommendations of the Committee: I. The raising of the standard of the Madrassa to the First in Arts Examination, thus converting it into a Second Grade College. II. The construction of a College for the Madrassa on the beach near Presidency College, Madras. III. The completion of the Boarding House scheme.

Mr. H.B. Grigg, M.A., C.I.E., British Resident at Travancore, has offered the following prizes for competition among the students of H. H. the Maharajah's College, Trivandrum:—1. A prize of Rs. 50 will be awarded to the best student of the B.A. Class for Essay-writing. 2. A prize of Rs. 30 will be awarded to the best student in the F.A. Class for Essay-writing and Conversation in English. 3. A prize of Rs. 20 will be awarded to the best student in the Matriculation class for Essay-writing and Conversation in English. 4. A very good bat will be awarded to the best player in Lawn Tennis. 5. A very good ball will be awarded to the best player in Foot Ball. 6. Another prize will be awarded to the best student in Gymnastic exercises.—*Travancore Times*.

Mr. J. A. Douglas, M.A., Merton College, Oxford, has been selected by Mr. Adam out of a very large number of suitable candidates, to fill the Chair of History and Political Economy at Pachaiyappa's College,

Madras. The new Professor has had the advantage of attending the lectures of the most eminent living historians in the foremost of historical schools. He graduated several years ago with Honours in History, and his testimonials shew that he has had a singularly successful career as a teacher. On the cricket field, too, and on the river, he has won honours of another kind. Mr. and Mrs. Douglas were to have started from England by the *Clan Macintosh* on the 15th ultimo, and may therefore be expected in Madras in the early half of the present month. The Trustees of Pachaiyappa's Charities are to be congratulated on having secured the services of such an eligible Professor.

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The Madras Director, in his Review of the Report on the working of the Government Oriental Manuscripts Library, Madras, during 1892-93, notes that the number of manuscripts added to the Library during the year was 85, including 6 rare ones obtained by transcription, 36 by purchase and 43 by gift from private individuals, the corresponding figures for the year preceding being respectively 79, 37, 16 and 26. Considering the difficulties in the way of persuading owners to part with their manuscripts, the advance in the number of purchases made and gifts obtained, is very gratifying. There were 1,365 visitors to the Library during the year against 815 in 1891-92. It is satisfactory to note that the Library is becoming more appreciated and resorted to by the public. The Director is glad to place on record his appreciation of the excellent work done by Dr. Oppert during the years he was in charge of the Library.

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A wonderful exhibition of mathematical talent was displayed last month by a child of five years of age in Pachaiyappa's Hall, Madras. "The marvellous boy" is little Master Dudley Wyatt, son of Mr. Wyatt, partner in and musical Director of the Willard Opera Company. On the invitation of Mr. M. T. Quinn, M.A., Acting Principal of Pachaiyappa's College, the boy displayed his wonderful powers before a densely crowded hall of students and visitors. The boy was blindfolded and seated on the dais. Then figures written on slips of paper throughout the hall were put in long rows on the blackboard till they were all exhausted, and they were then read out as quickly as possible in the boy's hearing. More than half an hour afterwards, having in the meantime done a large number of sums mentally, the boy gave from memory every figure on the board as it had been read out to him at the beginning. He then correctly totalled all these figures, and on being asked at the end to add together all the totals of the various sums he had done, he did so correctly after a little thought; and when the parties

at the blackboard had finished the same calculation—long after the little boy—they found his grand total was quite correct. The boy never forgot a single figure. This Infant Phenomenon, on being examined by a quartette of medical men in Bombay, was declared to possess "the busy brain of a man of 35 or 40 years of age."

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Mr. Sasipada Banerjee is a noble type of the practical, thorough-going, Hindu social reformer. Last month we drew attention to his beneficent labours in our review of the work of the National Indian Association for 1892. The July number of *Progress* leads off with an interesting article describing his heroic struggles and complete triumph over all obstacles placed in his way by caste and prejudice. His Widows' Home at Baranagar, near Calcutta, is the Bengal counterpart of the institution started by Pandita Ramabai in the Western Presidency. It is sad to reflect that in all India there are as yet only two institutions at the doors of which Hindu widows can leave their dreadful doom behind them, and whence, after a practical course of instruction, they emerge as useful members of society "to become teachers, or nurses, or to be re-married." It is true and highly creditable that Sita, elder daughter of Rajah Gode Narayana Gajapati Rao of the Madras Presidency, and widow of the late Rajah of Wadhwan, Kathiawar, has established at Vizagapatam a Dharmasala, or Home for the reception of poor Hindu widows of the upper classes; but she herself writes in a letter contributed to the July number of *The Indian Magazine and Review*—"I would not receive a girl who would ever think of re-marriage." What India most needs is more Sasipadas and Ramabais—more heroes and heroines. Of such stuff are made the heroes of the nations. By such the greatest victories are won.

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In reviewing the Report on Education in the Kurnool District for 1891-92, Dr. Duncan remarks that there were as in the previous year only four Secondary Schools, two of the Upper Secondary and two of the Lower Secondary Grade, and their attendance was almost stationary, indicating that the demand in the District for Secondary Education is very languid. Primary Schools increased by 8 per cent. in number and by 14 percent. in strength. The increase in schools was almost wholly confined to aided and unaided Primary Schools, while the Board schools remained stationary at 12.4. The opening for the first time of two Night Schools was a step in the right direction. The increase of 51 Paraiya boys, and the establishment during the year by the Local Board of two special schools for them are very encouraging. The number of Muhammadan schools rose by 83 per cent. and the attendance in them by 34 per cent.,

though the number of Muhammadan pupils in non-Muhammadan schools increased by only a little less than 2 per cent. On the whole, 28 against 25 per cent. during 1890-91 of the Muhammadan boys of school-going age were under instruction. There has thus been a steady improvement in the educational condition of this community. The employment of a separate Inspecting schoolmaster for Muhammadan schools has, the Director is glad to note, already borne good results. Attempts have been made to provide for the education of Cheuchus, the aboriginal tribes on the Nallamala hills. The qualifications of the teaching staff leave much to be desired. The attention of Local Boards and other managers of schools should be invited to the preamble to the Madras Educational Rules which makes the conditions of recognition regarding accommodation, staff, &c., applicable to all Upper Primary Schools from the beginning of the current calendar year, and to all Lower Primary schools from January 1895. Physical education received increased attention, instruction in drill and in elementary exercises in gymnastics having begun to be given by trained teachers in Primary schools also. Provincial, Local and Municipal funds devoted, respectively, 48, 88 and 39 per cent. of their total expenditure on education to the extension of Primary education. The amount spent from Municipal funds was not sufficient and should be increased.

LITERARY NOTES.

The June number of the *Punjab Magazine* contains an interesting article on "The Study of Sanskrit," by B. V. Kamesvara Aiyar.

Mr. Thomas Denham, M.A., Madras, contributes a short article to the July number of *The Working Men's College Journal*, London.

Mr. T. B. Kirkham, who has for over a quarter of a century edited the *Bombay Educational Record* with distinguished ability, bids farewell to his readers in the August number.

The June number of *The Young Men's Miscellany* (Madras), is full of bright and varied information. The get-up is attractive, and the *Miscellany* exhibits considerable improvement since its original appearance last year.

We have received the March and April numbers, forming Nos. 1 and 2 of Vol. XI of *The Student's Friend* (Bombay). This Journal is well brought out, contains solutions of Examination papers, and deserves better support than it seems to receive.

The July number of *The Vivaka Ohintamani*, a Tamil monthly, contains several interesting articles. Among these we notice "The Habits of Birds" by Mr. T. R. Ramanatha Aiyar, B.A., L.T., of Pachaiyappu's College, Madras. It is a pity that any misprints should be found in the Table of Contents on the cover.

Longfellow was dining on one occasion at a friend's house, and the company included a gentleman named Nicholas Longworth. One of the guests remarked on this to the poet, and seemed to find the conjunction of names very curious. "Your name and Mr. Longworth's begin alike, but end differently," he said. "Yes," answered Longfellow, "and it affords only another proof, I am afraid, that worth makes the man, the want of it the fellow."

LAST WORDS OF GREAT MEN. "It is well"—Washington. "Then I am safe"—Cromwell. "Let the light enter"—Goethe. "Independence for ever"—J. Adams. "I thank God I have done my duty"—Nelson. "I feel as if I were myself again"—Walter Scott. "Don't give up the ship"—Captain Lawrence. "I feel the daisies growing over me"—John Keats. "The best of all is, God is with us"—John Wesley. "Many things are becoming clearer to me"—Schiller. "I am taking a fearful leap into the dark"—Thomas Hobbes. "O Liberty, Liberty how many crimes are committed in thy name!"—Mme. Roland. "Let us cross over the river and rest under the shade of the trees"—Stonewall Jackson.

We acknowledge with thanks the receipt of the July number of *The Telugu Zenana Magazine*. This is the first number of the first volume of a new monthly journal, intended to be read during leisure hours by young girls in Hindu households. Such children are now usually withdrawn from the schools about the age of puberty. Their early withdrawal is a national defect; but as it cannot be helped for a considerable time to come we welcome the new journal. The notes on Health, Domestic Economy and Home-Training are properly worded in easy Telugu Prose. Only very moderate thoughts such as would befit much younger children than Zenana girls and women find a place in the journal. Although more substantial things in connexion with these matters might have been inserted, we have nothing but words of praise for the aim and manner of the journal.

We have received the July number of *The Telugu Journal of Education*, a monthly journal published by M. R. Ry. K. Suryanarayana of Masulipatam. The object of this publication is to give to those employed in elementary teaching in the Telugu country correct notions on the art of

teaching as understood in Europe, which it is also our own object in these pages to disseminate. The first article explains Froebel's Kindergarten gifts to children. Under the second article "Illustrations," the teacher is recommended to have a collection of specimens and models." "Spare the rod and spoil the child" is next rendered into Telugu verse. 'News and Notes' has many items, some from our own pages. A similar Journal in Tamil was published in Madras some years ago, but is now defunct. As Government is exerting itself in favour of Primary education, journals of this kind are proper objects of encouragement.

We have received from Trichur the 8th and 9th numbers of the *Vidya Vinodini*, a neat and valuable Malayalam Monthly and Review of four years standing, printed entirely in Malayalam. The former contains an editorial on modern Malayalam dramas; and the most notable feature in the latter is the publication, with the author's consent, of an excellent translation of the first few pages of Professor Roscoe's Chemistry. This noble effort of Mr. Pandala, B.A., to enrich Malayalam Literature with translations of scientific works and thereby to supply a long-felt want of the Malayalam Language is highly laudable and deserves to meet with success. We hope that others will follow in his wake by translating useful scientific works and being a medium of light and culture to those who cannot appreciate the originals. In the same number may be found a few delightful verses, full of meaning and exhibiting much poetical taste, by a prince of Cranganur. Both contain parts of a translation into Malayalam verse of Visakbadatta's immortal work, *The Mudrarakashasam*. We wish our Malayalam contemporary a prosperous future.

GENERAL NEWS.

Mr. E. B. Poulton, M.A., of Jesus College, has been elected Hope Professor of Zoology in the University of Oxford, in the place of Professor Westwood.

A very important clause of the Home Rule Bill has just passed the committee stage of the House of Commons, placing Trinity College, Dublin, under the control of the proposed new Irish Legislature.

Mr. J. A. Cramb, M.A., has been appointed Professor of Modern History at Queen's College, Harley Street, on the retirement of Mr. Harold Cox. Queen's College is one of the great Ladies' Colleges of London.

The Council of Bedford College, London, has elected to the Principalship, Miss Emily Penrose. Miss Penrose was a student of Somerville Hall, and obtained the highest distinction in Classics that has as yet been won by a woman at Oxford.

The Rev. Charles Pritchard, D.D., F.R.S., Savilian Professor of Astronomy at Oxford, died at his post last May at the great age of 84. He was fourth Wrangler at Cambridge in 1830, and had held his Oxford Professorship since 1870.

Professor Bryce, M.P., Chancellor of the Duchy of Lancaster, delivered at Oriel College, on June 10th, his final lecture as Regius Professor of Civil Law in the University of Oxford. He had held the chair for 23 years, and his final address was full of pathos.

The Senior Wrangler in the new Cambridge Mathematical Tripos lists published in June is Mr. G. T. Manley of Christ's. Miss Johnson of Newnham comes between the 5th and 6th of the new Wranglers, and Miss Stoney of Newnham is equal to the 17th Wrangler.

The highest house in the world is said to be the Mont Blanc observatory, which is in process of construction by M. Janssen, a distinguished French astronomer. The house was set up at Meudon to make sure it was perfect, and then taken apart and the pieces carefully numbered. These were then all carried to the top of the mountain, 15,000 feet above the sea, on the backs of porters.

In addition to the several academic institutions for girls which have been established in Germany during the last few years, the Wissenschaftliche Central-Verein of Berlin, has just founded *Gymnasial-course* for girls who have already finished their education in schools. Fraulein Helene Lange, the well-known champion of "woman's rights," will be the lady principal of the new institution.

In the Russian province of the Caucasus there were, at the end of 1891, no less than 3,797 educational institutions, including primary, normal, technical, Armenian, Muhammadan and Jewish schools, high schools for boys, and, not least, high schools for girls. The number of pupils in the primary schools was 142,000, or nearly 2 per cent. of the population; in the secondary schools, 11,133. It is worth noting that even in the Caucasus schools are declared to be ruining the physique of the children, especially their sight.

"The sweet girl graduates" have beaten record this year in the English Universities. Last month we showed how they had done at the London University. The new Tripos lists, recently published at Cambridge, tell a similar story. Two ladies are high Wranglers. Another has a high First Class in Classics. Several have a First Class in the less popular branches—three in History, two in Mediaeval and Modern Literature, two in Moral Science, and one in Natural Science. Numbers of them have passed in the lower classes in all subjects, and the honours are fairly divided between Girton and Newnham.

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The Government reports for the past school year show that in Germany there are 56,560 elementary schools (in Prussia alone 34,742); of regular permanently appointed teachers 110,032 (Prussia, 70,767), of whom 13,750 (Prussia, 8,494) are females. The scholars number 7,925,688 (Prussia, 4,916,476). The annual cost of maintenance (exclusive of training colleges) is about £12,120,000, of which at least £3,465,500 is paid by the State. Out of a total population of 49,428,470 there is a school for every 874 of the inhabitants. On an average there is a teacher for every 66 scholars. The annual cost per head is 30s.

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A statute has been introduced at Oxford and advanced two stages to provide that in the list of successful women candidates the college, hall, or other body to which each candidate belongs should be added to each name. As originally promulgated the statute confined the privilege to women resident in Oxford, but an amendment proposed, and carried on a division, has removed the arbitrary restriction. An arbitrary restriction it was, for the peculiarity of the Oxford system towards women has been that candidates have been all along admitted to examination indifferently, whether resident in Oxford or elsewhere.

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The late Earl of Derby has left by will the following legacies to educational institutions:—To the University of London of which he was Chancellor, £2000; to University College, London, £2000; to Trinity College, Cambridge, £2000; to Rugby School, £2000; to the Manchester Grammar School, £1000; to University College, Liverpool, £2000. He also bequeaths to the Corporation of Liverpool, in trust for the Walker Art Gallery, £2000, the income to be applied to the purchase of paintings, with a special view to the encouragement of rising artists, and to the Corporation of Liverpool his cabinet of minerals and antiquities with its contents.

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On May 12th, a meeting of Welsh Members of Parliament was held to consider the proposed charter for the Welsh University. The only point of controversy which has arisen in connexion with the matter has been whether the University should be merely an examining body, like the University of London, or whether residence in one or other of the Welsh National Colleges should be required as a condition of graduation. The draft charter submitted by the Charter Committee, which is drawn up on the residential and teaching basis, with certain modifications as regards the University Extension movement and theological students, was adopted.

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Instead of giving or pumping knowledge into pupils and showing them what and how to do, they should be encouraged to stride out for themselves, to find out new truths and new ways of doing a thing, and unassisted to solve problems that lie within their powers. There is too much guiding, helping, and supporting in the schools and too little self-activity. Character is self-reliance and the only way to form it is by self-activity. Diesterweg expressed it: "Lead your pupils to self-reliance through self-activity in the service of the true, beautiful, and good." These are golden words and should be written over every teacher's desk.—*School Journal*, N. Y. and C.

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The sub-committee appointed to consider the means by which Trinity College, Dublin, might be opened to women, presented their report to the Academic Council on the 16th of June. They stated that they had before them two schemes. By one, women would be examined and take degrees, the teaching being given at Alexandra College by external teachers, the staff of Trinity College not being sufficient to supply double teaching. By the other, women would be admitted to the examinations and degrees and all the regular classes except those of the first or Junior Freshmen year, in which separate teaching would be given to them. In their report, the sub-committee state that they consider the former impracticable, and they recommend the latter.

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White is the emblem of light, religious purity, innocence, faith, joy, and life. Red, the ruby, signifies fire, divine love, and wisdom. Blue, or the sapphire, expresses heaven, the firmament, truth from a celestial origin, constancy and fidelity. Yellow, or gold, is the symbol of the sun, of marriage and faithfulness. In a bad sense yellow signifies inconstancy, jealousy, and deceit. Green, the emerald, is the colour of spring, hope, particularly of the hope of immortality, and of victory, as

the colour of the laurel and palm. Violet, the amethyst, signifies love and truth, or passion and suffering. Purple and scarlet signify things good and true from a celestial origin. Black corresponds to negation, despair, darkness, mourning, wickedness, and death.

A bright little boy was telling his mother of his experiences of the first day in school. "Why, our teacher don't know nothin'," he said, "she asks us all the time. She even wanted to find out of me what a cow was, and I told her it was an animal that eats grass. And then she wasn't satisfied, and me, and Lil, and the other boys and girls had to tell her lots o' more about it. And when we didn't know any more, she made us draw cows on the slate, so she could see how they looked. Mine was a dandy. I'll show you how I made it." That boy had a good teacher who knew how to set the children to thinking. Her guiding hand was so wisely hidden that the little ones believed they were the ones who were doing the leading. That is the secret of getting the greatest amount of self-activity in a primary class.—*School Journal*.

The following figures, taken from official documents sent to Chicago, sum up the material progress of primary education in France during the last twenty years:—*School buildings*.—Between 1878 and 1892, 27,000 schools have been built, and 10,000 enlarged or repaired, at a total cost of 600,000,000 francs. *Teachers*.—In 1872, 110,238; in 1892, 142,660. *Scholars*.—In 1872, 4,722,751; in 1892, 5,623,401. *Annual Budget*.—In 1872, 68,000,000 francs; in 1892, 168,000,000. Another table shows the increase in the number of certificated teachers since the law of 1881. In that year the number of uncertificated was—In public schools, 2,343 men; 9,901 women; in private (or clerical) schools, 2,229 men; 12,200 women; in 1891 the numbers were 260, 3,145, 797, and 6,741 respectively.

There are some natural teachers, some who teach well without professional training; but these, like all geniuses, are not very plentiful. Teaching, like every other profession, has to be learned. Doubtless many a farmer might become a good lawyer, in course of time, by going immediately into a court of justice and beginning to practise law. But who would wish to be the victim of his blunders, in order that some day he might become a passable lawyer? The same, doubtless, would be true in the practice of medicine, and the same query would be very pertinent. That one knows the taste of quinine is no argument that he knows how to administer it. The important thing is the diagnosis. It

is only in the teaching of children that we freely sacrifice the interests of those most concerned, in order that young men and women may undertake their work without preparation.

The Bill for providing Secondary Education in England has, we regret to say, hitherto made no progress in the House of Commons. This is not due to any want of activity on the part of the promoters of the measure, who have moved the second reading night after night. They have also from the first offered to refer the Bill to a Select Committee for full consideration by the representatives of all interests affected. Mr. Arthur Acland, on behalf of the Government, has agreed to this course being taken, but objection has been constantly raised to the further consideration of the Bill by various private members. In view of the great interest that the question is exciting in all educational circles, it seems unfortunate that persons, some of whom are professedly interested in the cause of education, should prevent the subject being thoroughly discussed this year by such a competent body for enquiry as a well-chosen Select Committee of the House of Commons.—*Record of Technical and Secondary Education*.

In a paper on "Secondary Education and the State" read last May by Mr. M. E. Sadler at the Conference of the Teachers' Guild of Great Britain and Ireland, held at Oxford, he urged that as secondary schools would touch the universities at one end of the line and elementary schools at the other, the system should embody representation of all grades of education, and the teaching profession should be regarded as one from top to bottom. Promotion from one grade to another would be very desirable, and old educational endowments should be freely applied to the needs of the time, since the munificence of benefactors did not confer the gift of prophecy, and wise liberality would be encouraged by confidence in subsequently wise administration. He suggested the formation of a National Council of Education, presided over by the Minister of Education, and with county boards. A short discussion followed, in which a general condemnation of the Secondary Education Bill was expressed.—*Ednl. Review*.

The veteran schoolmaster, Mr. Robert Swan, of Winthrop School, Boston, had a boy who was particularly rough and troublesome, and who had been often whipped by other teachers for bad behaviour. He had just entered the school after a three weeks' truancy. Mr. Swan told the boy to follow him into the basement. Of course the boy expected a severe whipping, but he was led to a closet, where the benevolent master

kept good clothes given to him for charitable purposes. He took down a very nice jacket, which had been placed at his disposal by a rich man whose boy had died, and said to the boy, "Try this on." He found that it was a nice fit, and then said to the boy, "I'll hang your jacket"—which was very dirty and worn—"here, and you shall wear this as long as you behave like a gentleman, for the boy who wore this was a gentleman. When you forfeit it, I will give yours back in exchange for it." The boy went back to the schoolroom without farther blame, and was never re-proved in school afterwards. He became interested in school, ~~wore the~~ jacket out, and grew up to be an excellent man. Self-respect and gratitude were the medicine for his moral maladies; and a germ of goodness was planted in the moral desert of his nature.—*Jnl. of Edn. (N. W.).*

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The Fifth General Conference of the Teacher's Guild of Great Britain and Ireland was held at Oxford in May. About 240 members of the Guild were present, and included representatives from all parts of the United Kingdom. The ninth annual report was presented, and stated that it had been thought advisable that the views embodied in Mr. Arthur Acland's Bill of 1892 should be kept to the front in the new Parliament. The Council had given consideration to the Secondary Education (England) Bill of 1892, and had passed resolutions to the effect that the Council was of opinion that the collection of information as to school supply, &c., should be made by local committees of county councils; that no Bill dealing with the organization of secondary education would be satisfactory which did not provide for some central authority appointed for a certain term of years; that such a central authority should be constituted out of the educational side of the Charity Commission, together with an equal number from the Educational Department and a sufficient number of professional experts of both sexes; and that no board or committee formed for the organization or administration of Parliamentary schemes of education could be considered satisfactory without ample representation of those actively engaged in teaching.

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A striking example of the signs of the times in English education was afforded by the Conference on Technical Education held last April at Cambridge. Fourteen County Councils, The Board of Agriculture, The Royal Agricultural Society, the University Extension authorities of Oxford, Cambridge, London, and Victoria, and the Yorkshire College were all represented. Cambridge was naturally best represented. The meeting of such a Conference, held in the Senate House, and presided over by the Vice-Chancellor, is an outward sign of the change that has taken place during the last twenty or thirty years in the attitude of

the University towards the country at large. Our fathers might well have stood aghast at the idea of such a gathering from all parts of England, discussing *inter alia* the proper method of teaching a farmer how to analyze his manures and the latest remedy for smut in wheat. Whatever value we may attach to the actual speeches made on such an occasion, few will deny the advantages of bringing together leading members of the Universities and the leading spirits among those who are actually engaged in the great work of organizing technical education. Such a Conference as this is highly valuable for the opportunity it affords to the Universities of acquiring a deeper insight into the educational ideas and working methods of the leaders of one of the great educational movements of the day, and of thus fitting themselves all the better for a share in influencing the movement.

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As specimens of answers given by candidates at recent examinations in Acoustics, Light, and Heat, held in connexion with the Science and Art Department, South Kensington, we subjoin the following:—*Question*.—Describe any way in which the velocity of light has been measured. *Answer (a)*.—"A distinguished but Heathen philosopher, Homer was the first to discover this. He was standing one day at one side of the earth looking at Jupiter when he conjectured that he would take sixteen minutes to get to the other side. This conjecture he then verified by careful experiment. Now the whole way across the earth is 3,072,000 miles, and dividing this by 16 we get the velocity 192,000 miles a second. This is so great that it would take an express train 40 years to do it, and the bullet from a canon over 5,000 years. P. S.—I think the gentleman's name was Romer not Homer, but anyway he was 20 per cent. wrong and Mr. Fahrenheit and Mr. Celsius afterwards made more careful determinations." (b) "An Atheistic Scientist (falsely so called) tried experiments on the Satellites of Jupiter. He found that he could delay the eclipse 16 minutes by going to the other side of the earth's orbit; in fact, he found he could make the eclipse happen when he liked by simply shifting his position. Finding that credit was given him for determining the velocity of light by this means he repeated it so often that the calendar began to get seriously wrong and there were riots, and Pope Gregory had to set things right." *Question*.—Explain why water-pipes burst in cold weather. *Answer*.—"People who have not studied Acoustics think that Thor burst the pipes, but we know that it is nothing of the kind, for Professor Tyndall has burst the mythologies and has taught us that it is the natural behaviour of water (and bismuth) without which all fish would die and the earth be held in an iron grip."

* *

An interesting addition has just been made to the number of strikes already in progress in various parts of Austria—namely, that of the students at the Universities of Innsbrück and Gratz. The commander of the Tyrol having issued an order forbidding all students who have been accepted as fit for military service, as well as officers of the reserve who have passed through the army, to belong to any of the students' societies, and requiring them, if already members of such societies, to withdraw from the same, the students at Innsbrück applied to the University authorities for leave to hold a meeting to protest against this measure. The Principal gave his permission, but the meeting was subsequently forbidden by the Ministry of Education, with the result of embittering the conflict between the authorities and the students, who have *en masse* ceased to attend the lectures at the Innsbrück University. This, however, was but the beginning. As the action of the military commander threatens the very existence of the ancient institution of colour-bearing students' societies, the movement immediately spread, being first taken up by the University of Gratz, where the students have also struck. From the course taken by the agitation here it seems likely that the Viennese students, who are entirely at one with their fellows in other parts of the country, will join the movement as a protest against an encroachment on what they consider to be an immemorial privilege and on their rights as citizens. A curious feature of the situation is that the various University towns appear to be in sympathy with the action of the students. Questions have been asked in the Upper Austrian Landtag on the subject, and the Government has been urged to have the order rescinded. One result of the agitation in Vienna has been a close union of all classes among the students without distinction of nationality or of political opinion.

* *

A Congress of German Philologists and Schoolmen was held at Vienna on May 24. Over a thousand members were present. Professor Uhlig, of Heidelberg, delivered a lecture on the dangers besetting classical education at the present time, especially attacking the opponents who declare that it is neither patriotic nor practical. In his opinion, no one could seriously state that the education given in German Gymnasias was not patriotic. The new lower school in which no Latin is taught, which is intended as a lower school both for Gymnasium and Realschule and so does away with the necessity of parents deciding for or against classical education at too early a stage, he characterized as a very dangerous experiment. Classical education ought not to be curtailed at all, the language element ought not to be neglected, Greek ought not to be given up. The learned Professor especially deprecated as dangerous and highly inadvisable the discussion of education by laymen, *i.e.*, by

those who are not schoolmasters. He also declared that what the School Reform party wanted was not so much to improve national education, as to lessen the knowledge and appreciation of the culture of foreign nations. "The national enthusiasts," he said, "desire neither to honour nor to know anything about the culture of other nations. They wish to surround every nation with a Chinese wall, whereas the progress of civilization depends on continual intercourse between them."

* *

The new Imperial Institute in London is controlled by a chartered body whose form of constitution was approved by a Royal Warrant dated April 21st 1891. The Governors are 125 in number, 12 being nominated by the Sovereign, 36 by the President, 36 by Colonial Governments, 15 by the Government of India, 21 by County and Municipal authorities of the United Kingdom, and 26 by the various learned and technical societies and institutions of the Empire. The full complement is made up with certain *ex-officio* Governors, who are principally high officers of State. The President of the Governing Body is the Prince of Wales and the Chairman of the Governors is Lord Herschell. Among the Governors nominated by the Sovereign are the Marquis of Salisbury, the Duke of Fife, Lord Herschell, Sir Lyon Playfair, Sir John Strachey, and Major-General Sir Owen Tudor Burne. The Governors appointed to represent India are General James T. Walker, late Surveyor-General of India; Mr. George Watt, Reporter on Economic Products to the Government of India; and Mr. W. T. Thisleton Dyer. Madras is represented by Mr. D. F. Carmichael, late Madras Civil Service; Bengal by Mr. Nolan, Secretary to the Government of Bengal; the N. W. Provinces by Mr. W. S. Halecy, late Bengal Civil Service; the Punjab by Mr. Baden H. Baden-Powell, late Bengal Civil Service, and Jeypore by Surgeon Lt.-Col. T. H. Hendley, Residency Surgeon, Jeypore. Sir Alexander Wilson represents the Calcutta Chamber of Commerce, Sir Frank Forbes Adam that of Bombay, and Mr. George Arbuthnot that of Madras. Sir William Hunter represents Indian Institutions in Bengal and Mr. Dadabhi Naoroji, in Bombay. The Secretary is Mr. Frederick A. Abel; the Assistant Secretary, Sir J. Somers Vine; and the Curator of the Indian section, Mr. J. R. Royal. The Special Committee for Indian Collections consists of Lord Herschell, Chairman (*ex officio*), Sir George Birdwood, Mr. M. M. Bhowmallee, Mr. J. A. Bryce, Surg. Lt.-Colonel Hendley, Sir W. W. Hunter, General J. T. Walker, Dr. Watt and two other gentlemen lately appointed.

* *

The May Meeting of Convocation of the University of London was held on the second Tuesday, as usual. Precedence was given to a motion, which was proposed by the chairman and carried unanimously, with reference to the death of the late Chancellor; and the chairman was authorized to communicate the same to the Countess of Derby, together with an expression of the sincere sympathy of Convocation. Of the other resolutions adopted the most important comprised (1) a proposal to allow candidates for examination in any living language at the M.A. Examination to be tested, at their option, in their ability to speak such language, and to give them a mark of proficiency if they pass the test; (2) authority to the Annual Committee to guard the interests of Convocation in regard to all questions that may arise in connexion with the Gresham University Commission; (3) a proposal for instituting a degree to be called "Master of Education," to be accessible to Bachelors in all faculties. A scheme of examination for this degree was presented by the Annual Committee, and was laid before our readers in our last issue.

The following day, Wednesday, May 10th, was Presentation Day. There was but a scanty attendance of Senators, probably owing to the ceremony at the Imperial Institute, which took place the same morning; but the number of presentees and their friends was as large as ever. The Vice-Chancellor presided, and in his speech passed a well-deserved eulogium upon the late Chancellor. One point of interest mentioned was that, by his will, the Earl of Derby had left £2000 to the University for the foundation of a prize, exhibition, or scholarship, at the discretion of the Senate. The Vice-Chancellor's eulogium was received in respectful silence, as was also a similar expression of feeling on the part of Sir John Lubbock. The presentations occupied about an hour; and some of the presentees were received with unusual enthusiasm, especially Mr. F. J. Steward, of Guy's Hospital, who came up for three gold medals and an exhibition; Miss Hayward, B.Sc., who had been recommended for two University scholarships; Miss Hatch, M.B., who, besides taking honours in medicine, was second, and obtained a gold medal, in obstetrics; and Mr. H. E. Nash, LL.B., on the ground, apparently, that he is a pure negro. The sensation created by the enormous number of ladies presented for Degrees was referred to in our last number.

Mr. Arthur Sidgwick, President of the Teachers' Guild of Great Britain and Ireland, delivered on May 18th, at the Fifth General Conference held at Oxford, an address on "The Educational Progress of the Year." In that address, he pointed out, says *The Educational Review*,

that in primary education material progress was exhibited in the increased number of children educated and the increased educational grant. Free education was a reality and a conspicuous success, and this last year £6,000,000 had been spent on education. He referred to the Extension courses of the Universities, and to the new policy of the Department to appoint inspectors from the ranks of the teachers, urging that common sense pointed out that a strong infusion of teachers could not fail to be an improvement. The registration of teachers was coming, and a reform highly desirable was that the age limits of the lawful employment of children should be raised. The progress made in secondary education, in spite of all appearances to the contrary, he ventured to call immense. Education was going on all round the circle; besides the boys and girls, men and women, county councils, committeemen, teachers, organizers, theorists, departments, and the public were all being educated at the same time. The most important university reform of the year was to be found in Scotland with regard to the admission of women to degrees, and never was better business done in a few months, and it had fluttered the doves in the other universities. In Dublin a strong effort was being made to admit women to teaching as well as to degrees. In Cambridge the degree agitation was visibly rising again. In Oxford they had 150 students keeping terms like the men, taught by the same teachers, examined by the same examiners, with the same papers, at the same time, in the same place. Some girls had obtained the highest honours in classics, mathematics, science, history, and philosophy, and yet they could neither matriculate, graduate, compete for a prize at all, nor enter any library or museum, or lecture-room except by favour. To put it mildly, they thought it about time that these disabilities were reconsidered, and the Scotch precedent was bound to help in bringing over reasonable opinion to their view. The University Extension movement was growing at both ends and in the middle, and was stimulating other allied agencies, and this year had seen a wholly new departure in the work in the formation of the first Extension college at Reading. He was daring enough to think that the year's progress was in every sense an encouraging picture.

All countries or localities which come into special notice in the newspapers during the year should receive proper attention in the class room.

There is very great danger in the appointment of too many young and immature teachers, with no high moral earnestness, with no proper conception of the supreme importance of the teacher's profession.

REVIEWS AND NOTICES OF BOOKS.

COMMERCIAL ARITHMETIC by *S. Jackson, M.A.*; London: Macmillan & Co.; Price 3s. 6d.

This Commercial Arithmetic is all it professes to be; a book specially adapted to the requirements of commercial students. It assumes the reader to possess a competent knowledge of elementary arithmetic and the methods discussed in it are chiefly these which are required for making commercial calculations with accuracy and facility. Correct and complete information is given on subjects of primary importance in commerce such as the Pricing of Goods, the Prices and Standards of Trades, Stocks and Shares, Banking, Bills of Exchange and the Money Market. Throughout the book, hints are given for saving labour by employing simple devices. Considerable stress is laid on the advantages of a decimal coinage with the sovereign as basis. On this subject, the author makes the following remarks:—"We have a coinage ready made to our hands, with the radical coins as the £, florin, cent and mil (each being $\frac{1}{10}$ of the preceding); in other words money expressed in £ and decimals of a £ to three places. The great practical advantage of this coinage is that the sovereign is untouched. Any proposal with the penny as basis necessitates a world-wide revolution, whereas our immense foreign trade would be unaffected as long as the sovereign remains the integer". We gladly recommend the book to commercial students, and we have no doubt that a careful study of its contents will greatly benefit them.

ADVANCED PHYSIOGRAPHY by *R. A. Gregory and J. C. Christie*; London: Joseph Hughes & Co. Price 4s.

This book has been prepared to meet the requirements of the syllabus for the advanced stage examination under the Science and Art Department, South Kensington. Within the compass of 270 odd pages it contains a mass of highly condensed information, derived from various authorities, on such topics as the principles of light, celestial chemistry, stars and nebulae, and Kant's hypothesis. It is evident that a book of this description written avowedly up to the requirements of an examination and covering such an extent must necessarily be more or less of a 'cram' production, but the authors are to be congratulated on having at least endeavoured to reduce that cram to a minimum. We have carefully tested the various sections of the book, and can give it high praise as being accurate and up to date. Any one who has not time to study a standard treatise on astronomy would probably derive considerable benefit from the earlier Chapters of the book, whilst Chapter XIII. is a very interesting and fairly impartial *résumé* of current opinion on the

debatable topic of the fluidity or otherwise of the earth's interior. The book contains 105 illustrations, all of them good and many of them excellent. Candidates for the Madras Intermediate Arts examination in Physiography would do well to procure a copy.

1. LONGMANS' "SHIP" HISTORICAL READERS: BK. IV.—Stories and Biographies (1066—1485): London: Longmans: 1893. 1s. 4d.
2. DO. BK. V.—The Tudor Period, by *S. R. Gardiner*: London: Longmans: 1893. 1s. 6d.
3. HISTORY READERS, BK. VI: London: Macmillan & Co.: 1892. 1s. 6d.

No pains and no expense have been spared in the general get-up of these books which are excellent specimens of the latest development of the 'Reading-book' as an instructor. The illustrations are altogether admirable comprising as they do cuts from old pictures and monuments illustrating the manners, customs and topography of the time, pictures of cathedrals and stately English homes chosen for their architectural features, coins and copies of the best portraits of the monarchs and great men mentioned in each volume. Longmans' Book IV. is enriched with three coloured pictures besides more than 50 woodcuts. We have seldom seen better work of its kind than the portraits of the Tudor Kings and Queens in Book V., and the portraits of Mary Queen of Scots and of Francis Drake in the same book are exceptionally successful. The work itself is by Mr. S. R. Gardiner, who tells in brief the tale of the Tudor days in such a bright and pleasant way that its main outlines cannot fail to linger in the memories of the boys and girls who read it. Messrs. Macmillan's Book VI. takes in the Stuart Period with additional chapters on the constitution and functions of Parliament which forms a capital first introduction to Constitutional History. All three books are furnished with genealogical tables, list of events with dates, summaries of the subject-matter and lists of hard words. The books are hardly adapted to the special needs of Indian schools, but it would be a good thing if every Indian school-boy would read them for himself.

VAIKHANASA, a Sanskrit poetical translation of "Parnell's Hermit" by *M. R. Vaidyanatha Sastriyar, B.A.*, Kumbakonam: 1893. 4 as.

Considering the degenerate condition of Sanskrit poetry in modern times, everyone should hail with the greatest joy an attempt like that of the author of the work under review. The beauty and simplicity of the early poetry in Sanskrit and the vigorous and rich thoughts and ideas which its authors loved to express are no more seen in the later poetry in which artificial figures of speech, jingling sounds of alliteration, metaphors, hyperboles, quibbles and puns reign supreme; and the elaborate and artistic merits of which dwindle into nothing when seen

through the medium of translations into any other languages. If a regeneration of Sanskrit poetry can be accomplished by infusing a new life and vigour into it, and by enabling the present generation of Sanskrit poets to imbibe the rich, beautiful, and various ideas of the Western world, it should be a duty of every Sanskrit scholar who has received a Western education to do as much as he can in this direction. Mr. Vaidyanatha Sastriyar's translation is written in a good, simple and idiomatic style, and we hope, will be appreciated by those who know Sanskrit and English and for whom the work is principally written. But we cannot help remarking that in many places it will be unintelligible to mere Sanskrit pandits, and there are also errors and defects which a little more care and experience would have enabled the author to avoid. An example of this occurs in the very second line. Again on page 5, line 2, we find an expression meaning "having eyes as broad as white lotus" for "fair complexion" of the original, which is wrong. On the same page, the 13th and 14th lines are mere repetition and one of them may be omitted. These are not the only errors, but want of space prevents us from pointing out any more. Copies of the book can be had from the translator.

* **UNCLE TOM'S CABIN** is one of a series of abridged editions of standard works which has been brought out by Messrs. Bell and Sons for use in schools. The printing and get-up are good, though the illustrations leave very much to be desired. Still on the whole the book would be fairly suitable for an extra Reader in schools, although we cannot say that the story seems to us—classic as it may now be regarded as being—quite of the style best adapted to class purposes. Price 1s.

OUR LITTLE ONES are the first two numbers of a series of story-book readers for Infant schools published by Messrs. Nelson and Sons. These are got up in the publishers' best style. Paper, type, and illustrations, all leave nothing to be desired, and the infant scholars who possess these handsome little books are certainly to be envied. Each number costs 4d.

ELEMENTARY DECIMAL FRACTIONS, with the principles of the Metric System, Parts I. and II., are very clear, and classes which have gone through them would have a good grasp of the principles underlying the Decimal systems; whilst the examples are copious and well chosen so as to afford ample exercise. These little books are by Mr. J. Emerson Dowson, M.L.C.E., and are published by Messrs. Ruddiman Johnston & Co., London.

BOOKS RECEIVED.

- ELECTRICITY AND MAGNETISM**, by S. R. Bottone. With 102 Illustrations: London: Whittaker & Co. 1893. 3s. 6d.
- PHYSICS** by J. Cook, M.A. Central College, Bangalore: London: Longmans 1893. 2s. 6d.
- THE EARL OF AUCKLAND** ("Rulers of India" Series) by Capt. L. J. Trotter: Oxford at the Clarendon Press 1893. 2s. 6d.
- GEOLOGY**, an Elementary Handbook, by A. J. Jukes Browne, F.G.S.; London: Whittaker & Bell: 1893. 94 Illustrations. 4s.
- FOUR YEARS IN AN ENGLISH UNIVERSITY** by S. Sathianadhan, M.A.; 2nd edition, Madras: Srinivasa Varadachari & Co. 1891. Rs. 1-8-0.

MADRAS EDUCATIONAL NOTIFICATIONS.

Appointments.

Ootacamund, June 27, 1893.

- No. 49.—M.R.Ry. C. Ramachandra Rao Sahib, B.L., to be Senior Professor Law College.
- No. 50.—Mr. John G. Smith, B.A., Barrister at-Law, to be Junior Professor, Law College.
- No. 51.—M.R.Ry. Kalle Narayana Rao, B.A., B.L., to be First Assistant Professor.
- No. 52.—M.R.Ry. Venkata Krishnaswami Aiyar, B.A., B.L., to be Second Assistant Professor.
- No. 53.—M.R.Ry. Palaweneri Sundra Sivaswami Aiyar, B.A., B.L., to be Third Assistant Professor.
- No. 54.—M.R.Ry. Trichinopoly V. Seshagiri Aiyar, B.A., B.L., to be Fifth Assistant Professor.
- No. 55.—M.R.Ry. K. Pokkavil Govinda Menon, B.A., B.L., to be Sixth Assistant Professor.

The above terms to have effect for the second term of 1893 only.

Ootacamund, July 14, 1893.

No. 57.—Surgeon-Major John Maitland, M.D., to act as Professor of Surgery and Clinical Surgery, Medical College, during the absence of Surgeon-Lieutenant-Colonel W. R. Browne, M.D., on leave, or until further orders.

Ootacamund, July, 25, 1893.

No. 58.—Surgeon-Captain Charles Louis Williams, M.D., to act as Professor of Pathology, Medical College, during the absence of Surgeon-Captain J. Smyth, M.D., on leave or until further orders.

U. C. S. Examinations.

LOWER SECONDARY EXAMINATION.

It is hereby notified that the local Examining Committees appointed under articles 4 and 5 of Government Notification, dated 14th January 1891, for the conduct of the Lower Secondary Examination have all been abolished. The Lower Secondary Examination will, in future, be conducted in accordance with the provisions of Notification No. 43, dated 22nd May 1893, and will be held for the first time under this Notification in December next.

Office of Comr. for the U.C.S. Exams., Madras 1st June 1893. (By Order.)

With reference to the revised notification relating to the Lower Secondary Examination, published at pages 383—85 of the *Fort St. George Gazette* of the 30th May 1893, it is hereby notified that credit will be given to candidates for their success in any subjects—compulsory or optional—in which they may have been declared to have passed under the old notification. In other words—

(1) Candidates who passed in the compulsory subjects alone, under the old notification, will be declared to have passed the Lower Secondary Examination, if they come up and pass in the History of India and in Geography, and in any two optional subjects under the new notification.

(2) Candidates who passed in two or more optional subjects alone, under the old notification, will be required to come up and pass in the compulsory subjects alone as prescribed in the new notification. If the History of India and Geography were the optional subjects in which a candidate passed under the old notification, he will not be required to undergo examination again in these subjects but must pass in other compulsory subjects and in two optional subjects under the new notification.

2. Candidates for the Lower Secondary Examination who come under the above categories, should state in their applications the date and page of the District Gazette in which their success in the subjects in which they have passed is notified.

3. Candidates will be required to answer the non-language papers in the language brought up by them as their first language.

(By Order.)

Office of Comr. for the U.C.S. Exams., Madras, 3rd July 1893.

Educational Books.

Notice is hereby given that copies of the following Educational books have been received at the Office of the Director of Public Instruction, Madras, where they may be seen at all reasonable times:—

Name of book.	Price.
<i>English.</i>	
LONGMANS' "SHIP" HISTORICAL READERS, Messrs. Longmans, Green and Co.—	£ s. d.
Book 1	0 0 9
Book 2	0 0 10
Book 3	0 1 0
Longmans' Simple Stories from English History	0 1 6
Beard (W. S.), Longmans' Junior School Mensuration...	0 1 0
Brodribb (T) and Pym (Rev. W. Ruthven), Manual of Health and Temperance, Messrs. Longmans, Green and Co.	0 2 0
EPOCHS OF INDIAN HISTORY—	
Dutt (R. C.), Ancient India, 2000 B.C. to 800 A.D., Messrs. Longmans, Green and Co.	0 2 6
Geldard (C.), Statics and Dynamics, Messrs. Longmans, Green and Co.	0 5 0
Gow (James), A Method of English, Part I, Messrs. Macmillan.	...
SONNENSCHN (A.) and MEIKLEJOHN (J. M. D.), THE ENGLISH METHOD OF TEACHING TO READ, Messrs. Macmillan and Co.—	
The Nursery Book	0 0 1
The First Course	0 0 6
The Second Course	0 0 6
The Third and Fourth Courses	0 0 6
MACMILLAN'S HISTORY READERS, Messrs. Macmillan and Co.—	
Book III	0 1 0
Book IV	0 1 3
Books V. and VI	0 1 6 each
MACMILLAN'S RECITATION CARDS AND BOOKS, Messrs. Macmillan and Co.—	
Standards I, II and III	0 0 1 each
Standards IV and V	0 0 2 "
Standards VI, and VII	0 0 2 "
Laing (Frederick A.), A History of English Literature, Messrs. William Collins, Sons and Co.	...
Macmillan (M.) and Barrett (A.), The Paraphrase Text book, Mr. Nasarvanji M. Cooper	...
Macmillan (M.), Essays for the Young	...
Peterson (P.), Model Essays, Mr. Nasarvanji M. Cooper	...
ENGLISH CLASSICS FOR SCHOOLS, Messrs. Percival and Co.—	
Burns, Byron and Campbell's Shorter Poems (W. Murison)	0 0 6
Macaulay's History. The first chapter (A. G. Little)	0 1 4
Hawkins, (A. E.), A Term's Lessons on Air, Messrs Percival.	0 2 6
<i>Latin.</i>	
Brackenbury (M. J. F.), Selections from Ovid, Messrs. Percival and Co.	...
<i>Greek.</i>	
St. Matthew. The Greek Text with Notes and Vocabulary, Messrs. Percival and Co.	0 2 0
<i>Hindi.</i>	
Atlas, Messrs. William Collins, Sons and Co.	...
Elliott (Joseph), Kindergarten	...
Office of the Director of Public Instruction, Madras, 11th July 1893.	

D. DUNCAN,

Director of Public Instruction

THE INDIAN JOURNAL OF EDUCATION

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[No. 81]

The Editor has to remind all LITERARY correspondents, as well as publishers forwarding books, magazines, etc., for review, that, to ensure attention, they should be addressed to him at PACHAIYAPPA'S COLLEGE, MADRAS; and, for publication or notice in the succeeding issue, should reach him not later than the 20th of each month. No unsuitable contributions will be returned. All BUSINESS communications should be addressed to the Publisher.

EDITORIAL NOTES.

At the request of the Smithsonian Institution, Washington, U. S. A., forwarded to us by Mr. P. Lancaster, Secretary, Agricultural and Horticultural Society of India, Calcutta, we invite the attention of scientific men and of the general educational public in the East to the Hodgkins Fund Prizes. These prizes will be awarded for the first time on or after 1st July 1894, and their history is briefly as follows:—In October, 1891, Mr. Thomas George Hodgkins, of Setauke, New York, made a donation to the Smithsonian Institution, the income from a part of which was to be devoted "to the increase and diffusion of more exact knowledge in regard to the nature and properties of atmospheric air in connexion with the welfare of man." With the intent of furthering the donor's wishes, the Smithsonian Institution now announces the following prizes to

be awarded on or after July 1, 1894, should satisfactory papers on this subject be offered in competition:—1. A prize of 10,000 dollars for a treatise. 2. A prize of 2,000 dollars for the most satisfactory essay. 3. A prize of 1000 dollars for the best popular treatise. 4. A Gold Medal, to be awarded annually or biennially, for important contributions to our knowledge of the nature and properties of atmospheric air, or for practical applications of our present knowledge of them to the welfare of mankind. The treatises may be written in English, French, German or Italian, and should be sent to the Secretary of the Smithsonian Institution, Washington, before July 1, 1894, except those in the competition for the first prize, the sending of which may be delayed until December 31, 1894. It is probable that special grants of money may be made to specialists engaged in original investigations upon atmospheric air and its properties. Applications for grants of this nature should have the indorsement of some recognized academy of sciences, or other institution of learning, and should be accompanied by evidences of the capacity of the applicant, in the form of at least one memoir already published by him, based upon original investigation. To prevent misapprehension of the founder's wishes, it is notified that the discoveries or applications proper to be brought to the consideration of the Committee of Award, may be in the field of any science or any art without restriction; provided only that they have to do with "the nature and properties of atmospheric air in connexion with the welfare of man." Information of any kind desired by persons intending to become competitors will be furnished on application. All communications in regard to the Hodgkins Fund, the Hodgkins Prizes, the Hodgkins Medals, and the Hodgkins Fund Publications, or application for grants of money, should be addressed to Mr. S. P. Langley, Secretary of the Smithsonian Institution, Washington, U. S. A.

* * *

A principal motive for offering these prizes is to call attention to the Hodgkins Fund, and the purposes for which it exists, and accordingly circulars have been sent to the principal Universities, and to all learned societies known to the Institution, as well as to Representative Journals and men of science in every nation. A matter of high importance in connexion with this fund is that suggestions and recommendations are invited in regard to its

most effective application. This, we understand, refers to the general fund, of which only a small portion has been set aside for prizes. Here is a splendid opportunity for men of science to secure aid for researches likely to be of benefit to mankind. We hope to print the full details of the prizes in an early issue. The Smithsonian Institution, which awards them, is not as well known in this country as it ought to be. It was organized by Act of Congress in 1846, in accordance with the will of James Smithson, son of the third Duke of Northumberland. The founder had devoted his life to scientific pursuits, especially to chemistry, and bequeathed the reversion of an estate amounting to over half a million dollars to the United States of America, to be devoted to "the increase and diffusion of knowledge among men." The Institution thus created is the head-quarters of science in America, is governed by regents appointed by the Federal Government, and has for its Presiding Officer and Chancellor, respectively, the President and the Chief Justice of the United States.

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An Association called "The Bombay University Union" was founded at a large public meeting of the graduates and undergraduates of the University of Bombay, held on the 7th of last July in the Hall of the Framji Cowasji Institute, Bombay. The main object of the new Union is to watch over the educational interests of students and to offer suggestions to the University on their behalf. The Union has not allowed grass to grow under its feet, for at the very same meeting at which it sprang into existence, it confirmed a series of resolutions passed on the 25th of last March at a large public meeting of graduates and students held in another part of Bombay. The following are the resolutions passed and confirmed by the two meetings, and forwarded to the Registrar of the University to be submitted to the Syndicate, and also to us for an expression of opinion. I. That students be supplied with the number of marks they may obtain for every question in all the papers set at examinations, or failing that (*sic*) the old system of giving marks in every paper be restored. II. That the meetings of the Senate be kept open to the public. III. That fees in the different University examinations be not raised, and that in order to meet the deficit occasioned by the withdrawal of the Government grant, the Matriculation examination be held twice a year. IV. That plucked candidates be not compelled to appear again in the same

examination, in those subjects in which they have once passed and that this concession be granted with certain restrictions and modifications that the Senate might think proper. V. That the old system of prescribing books for a cycle of five years be restored. VI. That only one paper be set on every examination day in all the examinations. VII. That a committee consisting of Messrs. M. H. Vakil, B.A.; C. V. Divan, B.A.; R. R. Desai, B.A.; M. K. Kapadia, B.A.; C. M. Ghandhi, B.A.; and Dr. P. P. Vaidya, L.M. & S." (*sic*).

Looking at these resolutions as a whole, we should say that they have been passed by a body of youthful enthusiasts who love the Bombay University student "not wisely but too well." We should be sorry to see the first resolution carried into effect in any University. Its first alternative would make the position even of a highly-paid full-time Registrar very unenviable, much more that of the present Registrar who is neither well-paid nor a full-time incumbent; while the system of printing the marks in every paper we regard as being below the dignity of any University worthy of the name. As regards the second resolution, meetings of the Senate are open to the public, in so far as they are open to the Press. What more is wanted than to be able to read what each Senator says? To admit students to these meetings would be subversive of all University discipline. It is hard to see how the deficit caused by the withdrawal of the Government grant could be met, if not by raising the fees. As mentioned in our last number, the Bombay Government has already sanctioned the resolution of raising the fees recently passed by the Senate of the University, and the enhanced fees come into operation from this year. In such a case as this, the Senate of each University is naturally the best judge of local requirements. The plan proposed by the Union works well in colder latitudes, but is, we fear, utterly impracticable in a tropical climate like India, and the heavy strain inflicted upon examiners and students alike once a year in this country by the annual examinations is already sufficiently severe. In any case, the second Examination would, under present circumstances, be for failed candidates only; and as students would have only half the usual time for preparation, they could not assimilate or digest their mental food by regular educational methods, but would freely resort to "cram," with which we believe the Union has no sympathy.

As the fifth resolution has been already adopted by the University, no comment on it is called for here. The idea contained in the sixth resolution seems to be original, and to be based upon the theory that "time was made for slaves."

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There are good points about the fourth of the above resolutions, the only one, we regret to say, of which we can speak with favour. Even here a distinction has to be drawn. With pupils, before they have shown their fitness to enter upon a University course by passing a Matriculation or Entrance Examination, we are in no wise concerned; and in this respect each University looks to its own standard, which should be high. In the case of advanced students who present themselves for the B. A. Degree Examination and pass in any one subject, we should be as glad as the "Union" to see some method proposed and worked out by which they should not be compelled to appear again in that subject for the same Examination. This might be done, as in Madras, by splitting up the Examination into as many branches as might be found desirable. In the F. A. Examination the case is not quite the same. Here the students are younger and the subjects and standard easier. The best way out of the difficulty here would be, it seems to us, either to make some of the F. A. subjects optional, thus making an earlier beginning in the special branch to be afterwards taken up for the B. A. Degree, or to have a graduated standard in the pass-marks, the marks for language being highest, and a low minimum being fixed for any one other subject. In conclusion we have only to add that the Committee of the new "Union," of which the first three mentioned above are the Honorary Secretaries, is strong, young, and energetic; and by offering wise, well-reasoned, and well-timed suggestions to the Syndicate of the Bombay University, is likely in the future to do good educational work.

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A despatch has been received by the Madras Government from Her Majesty's Secretary of State for India on the question of the recognition of the Medical degrees of the Madras University by the General Council of Medical Education and Registration of the United Kingdom. The Executive Committee of this Council notify that they accept the degrees in Medicine and Surgery of the University

of Madras as qualifying for admission to the Colonial Register; but direct the attention of the University authorities to the resolution of the General Medical Council, dated June 6, 1890, to the effect "that the system of compensation as between the three different subjects of the qualifying examinations, viz., Medicine, Surgery and Midwifery—is contrary to the intention of the Medical Act (1886)." As regards the diploma of Licentiate in Medicine and Surgery, the Executive Committee direct attention to the resolution of the General Medical Council that the course of professional study should occupy at least five years. Under these circumstances they cannot accept the License, with its present curriculum of four years, except in the case of Licentiates who commenced Medical study before January 1, 1892. It is to be hoped that the Madras curriculum may be altered to suit the requirements of the General Council of the United Kingdom.

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The attention of educationists all over the world has been recently fixed upon the Hon. W. T. Harris, LL.D., Commissioner of Education, United States of America, in connexion with his presiding at the World's Educational Congress held last July in Chicago. We reproduce elsewhere from one of the Johns Hopkins University Circulars, an abstract of a course of lectures to teachers delivered by him early in the present year at that University. We believe they will be perused with interest by our readers, and that they will at the same time be found to prove the lecturer well worthy of his present exalted dignity and of the high honour conferred upon him by the Congress.

* * *

We reproduce on another page from the *Journal of Education, New England*, an admirable address on "Milton as an Educator," originally read before the Massachusetts State Teachers' Association so long ago as 1874, by the Rev. Phillips Brooks, afterwards Bishop Brooks, of Boston. The address is remarkable for its elegant diction, lofty conception, and true appreciation of Milton's educational theories. It should be carefully read by every teacher, and is in all respects a model of what such an address should be. Milton insisted upon three points in teaching, one of which is "practicalness." Immediately after his theories, as expounded

by the late Bishop Brooks; and as it were by way of corrective, we give an article by Mr. Wells, F. C. P., "Against being too practical in teaching." It should, however, be noted that Mr. Wells does not write against "practicalness" in the lofty Miltonian sense, but only against a viler practicalness which is used "as an elegant covering for unsystematic and empirical ways."

* * *

We informed our readers in our June issue that the retiring Editor had not severed himself from "all connexion with the Journal he loved so well and conducted for so short a span with such signal lustre." The truth of that statement is borne out by our present number, where the facile pen and genial humour of the writer of "Our London Letter" are easily recognizable.

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This number of the Journal will be found to contain eight extra pages, and still we have been unable to overtake arrears. In it will be found under "Correspondence" the last word we intend to publish concerning a former review. In our next number we propose to open a Symposium on the question of "Teaching Universities for India."

THE PHILOSOPHY OF EDUCATION.*

By THE HON. W. T. HARRIS, LL. D.,
Commissioner of Education, United States of America.

I.—THE LITERATURE OF EDUCATION.

The first and most important of all educational literature is that showing the ideals of a people—the literature on which they are brought up—generally the sacred books which reveal what the people regard as divine, and consequently what is the highest ideal to be realized. China, for example, has Confucius and Mencius, showing the family as the type of the social whole. These writings furnish the contents of the mind of the Chinese—minute observances of etiquette; how to behave towards one's elders and superiors in rank, towards one's inferiors or juniors, towards one's equals. Chinese schools are almost exclusively devoted to

* Abstract of a course of five lectures on the Philosophy of Education given to those members of the Johns Hopkins University who are engaged in teaching or who expect to become teachers, by the Hon. William T. Harris, LL. D., Commissioner of Education, January 7-14, 1893.

filling the memory of the pupil with the ethical maxims of these sacred books, so that the mind shall be full of family etiquette. The aim of Chinese education was to teach the young how to behave; that of the Persians, how to ride, shoot, and speak the truth. The Persian differs from the Buddhist in that the latter wishes to get rid of the world, while the former attempts to conquer the real. The Phœnicians, again, furnish a contrast to Chinese education. Their object was to wean the child from the family; whereas the Chinese endeavour to educate the young so that they will become submerged in the family. The Phœnicians aimed to create a love of adventure. Their children were educated in myths. The stories in Homer's "Odyssey" must have been derived from the tales of the Phœnician sailors, which were calculated to engender a hunger and thirst for adventure, so that the young Phœnician would gladly get on board ship and go to the ends of the world in the interests of trade. The Greeks were imbued with the new principle of a spiritual and beautiful individuality. They thought more of the games which they practised in the evenings on the village green than of the tasks by which they earned their bread. They learned history and geography from the second book of Homer's "Iliad." They thought not of commercial education like the Phœnicians, but of that heroic individual who furnished a beautiful ideal. Later on, Greek education became more scientific and more reflective. The Roman concentrated his whole mind on the will. He went beyond the circle of his city, and studied to cause even foreigners to live under the same laws with himself. Freedom meant more to him than to any of the Asiatic nations. It meant the power of the individual to hold, alienate, and devise property. This was an enormous step upward in educational progress. Hitherto, property could only be held by the family. Contract is the supreme idea of the Roman. He even carries it into his religion. Thus he prays to one of his deities to help him in some extremity or to give him his desire, and he promises, in turn, to build the god a temple. The Roman wants to conquer all peoples and to make them free under the law. But the greatest educational lesson is derived from the Hebrew people. They teach the personality of the Divine apart from Nature. This Divine Person creates Nature in order that He shall have something to recognize Him. The Divine Being does not efface man simply, but is the embodiment of goodness and righteousness—the righteousness that breathes the spirit of loving kindness, holding his creatures responsible only in so far as they know the right, and returning their deeds upon them. Art education ranked first in the Greek mind, for he worshipped the beautiful. Then came science and philosophy. From the Greeks we get these elements of our educational curriculum. From the Romans we get the principle of organiz-

ation. Whether or not a person is educated reflectingly into civilization, he finds himself in the great network of usages that go to make up civilization. Education is meant to give one an insight into the genesis of these things, so that he can detect an element of each in the threads of his civilization. Ninety-nine out of a hundred people in every civilized nation are automata, careful to walk in the prescribed paths, careful to follow prescribed custom. This is the result of substantial education, which, scientifically defined, is the subsumption of the individual under his species. The other educational principle is the emancipation from this subsumption. This is subordinate, and yet, in our time, we lay more stress upon it than the other. Look at the French Revolution. What a prodigious emancipation that was! It was predicted by Rousseau; but those who read him only superficially, without first studying his genesis, will find that their minds are poisoned by his doctrine of the supremacy of nature. Comenius taught the emancipation of the individual from the printed page. Spencer says that the modern school system is all wrong, and has a tendency to get away from science and cause students to waste time over the dead languages. Emancipation has now become the important side of the educational question. But the student of advanced education must first avail himself of the wisdom of the race, and learn how not to be limited by it. He cannot progress unless he is a free man; for he must not be so much subsumed that he cannot investigate scientifically, and with safety to himself, all problems that present themselves.

II.—PROBLEMS PECULIAR TO AMERICAN EDUCATION.

There are two kinds of education. The first may be called *substantial* education—the education by means of the memory; the education which gives to the individual methods and habits and the fundamentals of knowledge. It is this education which the child begins to receive from its birth. This sort of education is education by authority—that is, the individual accepts the authority of the teacher for the truth of what he is told, and does not question it or seek to obtain insight into the reason for its being so. It is this education by authority—the education of the past—that the modern or second kind of education seeks to supersede. This second kind may be called *individual or scientific* education; it is the education of insight as opposed to that of authority. When this kind of education is acquired, it frees the individual from the authority of the other. Under the system of education by authority, when told, for instance, that the sum of the three angles of a triangle is equal to two right angles, this will be blindly believed only as long as authority sanctions this belief; but when an insight into the reason for

this geometrical truth is obtained, no change of authority is able to make the individual doubt. But there is this danger in the system of education by insight, if begun too early, that the individual tends to become so self-conceited with what he considers knowledge gotten by his own personal thought and research, that he drifts towards empty agnosticism with the casting overboard of all authority. It is, therefore, necessary that this excessive conceit of self which this modern scientific method of education fosters, be lessened by building on the safe foundations of what has been described as the education of authority. The problems of the reform movement centre, therefore, on the proper method of replacing this authoritative or passive method of education by education through self-activity.

There is another problem—that of the *method* of study. Germany advises us to teach by oral methods, by giving pieces of information and insight orally by word of mouth. But the American educators have blundered upon what may be defended as the correct method, namely, the text-book method. It was merely the outcome of an unconscious trend. The method is of course liable to very serious abuse, but the good points greatly outweigh the bad. It has the advantage of making one independent of his teacher; you can take your book wherever you please. You cannot do that with the great lecturer, neither can you question him as you can the book, nor can you select the time for hearing the great teacher talk as you can for reading the book. And it is true that nearly all the great teachers have embodied their ideas in books. The greatest danger of text-book education is verbatim, parrot-like recitation; but even then from the poorest text-book a great deal of knowledge can be gleaned. Then there is the alertness which in any large class will necessarily be engendered by an intelligent understanding and criticism of the results arrived at by different pupils in discussing a certain piece of work given in his own words. And then there is the advantage to be found in the fact that with the text-book the child can be busy by itself. Lastly, there is the problem of *discipline*. There should be very little corporal punishment; the milder forms of restraint should be used. The child that is brought up accustomed to the rod loses his self-respect, and may become the man who must have police surveillance. Silence, punctuality, regularity and industry are fundamental parts of a “substantial education” as much as the critical study of mathematics, literature, science and history is a part of the “education of insight.” These two kinds of education, that of authority and that of self-activity, should be made complementary.

III.—OPPOSITION BETWEEN PESTALOZZI AND HERBART AS EDUCATIONAL LEADERS.

Pestalozzi laid great stress on sense-perception as the foundation of all school education. Herbart lays stress on the elaboration of sense-perception or rather upon the mental reaction against the impressions made on our senses. Thought goes back of the object to understand and explain its origin, how it came to be what it is, what purpose it is to serve. Thought sees objects in the perspective of their history. It studies causes and purposes. Thus thought is not as the disciples of Pestalozzi hold, a continued and elevated sort of sense-perception, but rather a reaction against it. It is a discovery of the subordinate place held by objects in the world; they are seen to be mere steps in a process of manifestation—the manifestation of causal energies. A new perception is received into the mind by adjusting it to our previous knowledge; we explain it in terms of the old; we classify it, identify it; reconcile what is strange and unfamiliar in it with previous experience; we interpret the object and comprehend it; we translate the unknown into the known. This process of adjusting, explaining, classifying, identifying, reconciling, interpreting and translating, is called *apperception*. We must not only perceive, but we must apperceive; not only see and hear, but digest or assimilate what we hear and see. Herbart's “apperception” is far more important for education than Pestalozzi's “perception.” At first the memory was the chief faculty cultivated in education; then Pestalozzi reformed it by making the culture of sense-perception the chief aim; now with Herbart the chief aim would be apperception or the mental digestion of what is received by perception or memory. As illustrations of the power of apperception to strengthen perception—Cuvier could reconstruct the entire skeleton from a single bone; Agassiz the entire fish from one of its scales; Winckelman the entire statue from a fragment of the face; Lyell could see its history in a pebble; Asa Gray the history of a tree by a glance. Apperception adds to the perceived object its process of becoming. Noire has illustrated apperception by showing the two series of ideas called up by the perception of a piece of bread. First the regressive series—dough, flour, rye; and the processes—baking, kneading, grinding, threshing, harvesting, planting, &c. Each one of these has collateral series, as for example, planting has plowing, plow, oxen, yoke, furrow, harrowing, sowing seeds, covering it, etc. The second series is progressive—bread suggests its uses and functions; food, eating, digesting, organic tissue, life, nourishing strength, supply of heat, bodily labour, &c. The course of study in schools must be arranged so as to prepare the mind for quick apperception of what is studied. The Pestalozzian makes form, number, and

language the elements of all knowledge. He unfortunately omits causal ideas, which are the chief factors of apperception; we build our series on causality. Accidental association satisfies only the simple-minded and empty-headed.

IV.—ROUSSEAU AND THE RETURN TO NATURE.

REVOLUTIONARY PROTEST.

In the time of Louis XIV, the nobles, attracted to Court and to a life of gaiety, neglect their estates and waste the fruits of toil in riotous living; the labourers deprived of the advantage of the directive power of the nobility fall in power of production. The French Revolution is the result. Rousseau its prophet; he proclaims a return to nature. "Nature," a word of ambiguous meaning; human nature, *versus* physical nature; human history the revelation of man's nature; it is realized in institutions and not by man as an isolated individual. Nature in time and space is under the dominion of necessity, everything constrained to be what it is by outside forces. Human nature is an ideal, and when realized it has the form of freedom and self-determination, each man a law unto himself and each one engaged in helping every other one, for by this each one helps himself. Rousseau appealed to nature in everything. What we call civilization was to him a mere artificial form. His plea was to be natural, come back to the point where nature leaves you. Rousseau came from Switzerland to France, and at an opportune time for him; for there was a great ferment of ideas at this epoch. He was struggling along in Paris, barely securing a livelihood, when there came the offer from the Academy of Dijon of a prize for an essay on the progress of the arts and sciences, whether it has tended towards the purification of morals and manners. The negative side suggested itself more forcibly to him, as he was better fitted for it by his mode of living and morals, and by his literary style, and he found himself at once a "censor of civilization." This essay was soon followed (1752) by one on the origin of the inequality among men. The great tension produced by the artificiality of the civilization of the Court life of the time had caused men to become anxious to get back to a simplicity of living, and Chateaubriand painted the charms of the forest life of the Indians. In this reaction the meaning of civilization is ignored. Man emancipates himself from drudgery and compels nature by the forces of his intellect to feed and clothe him. The "Social Contract" followed (1762) this with an attack on the authority of the State; and in the same year his *Emile* undermined the School and the Church; and so he attacked all the social institutions one after another—the

family, civil society, the Church and State. He proposed to sweep all away by summoning them before the bar of his individual judgment and condemning all. In the opening paragraph of his *Emile* he declares that everything which comes from nature is good, while everything degenerates in the hands of man. The antithesis of civilization is savagery, and Voltaire wittily exposed the fallacy of Rousseau's teaching in his letter accepting the book. He said—"never has anyone employed so much genius to make us into beasts. When one reads your book he is seized at once with a desire to go down on all fours." External authority is a perennial necessity for man in his immaturity. An appeal to nature is always a piece of jugglery with words. In mere nature we have matter and force. Everything inorganic is made by some external influence. But organic nature is the opposite of inorganic. The plant has the power of assimilation, and the animal the further powers of locomotion and feeling, or ability to select or choose its surroundings. In man this is still further increased by recollection and memory, by which the mind makes over its impressions. To do his duty properly he must look to higher things, and in ethical ideas the human becomes transcendental. The moral man acts as though the sole being in the world is humanity. No natural instinct is admitted as having validity against the moral law. If we adopt the doctrines of material nature and yield to our feelings and impulses, we remain animals. But if we take nature in the sense of our ideal, divine possibility, and realize it by education, we attain to human nature properly so-called, which is not something given us without effort, but only the product of culture.

V.—HERBERT SPENCER AND WHAT KNOWLEDGE IS OF MOST WORTH.

In Herbert Spencer, the return to nature means the study of natural science, and this becomes the great thing. But natural science is only the instrument with which we conquer nature. Everybody becomes filled with the idea of progress by it, for we see that nature as it is, existing in time and space, is conquered by inventions and made to serve man. There was never a more unscientific book made than Spencer's essay on *Education*; for while he praises science, he does not apply it to a study of education as it is and has been. To do this he ought to study the genesis of the course of study and explain its functions. The unscientific person takes things as they are, and cares not for their origin. To study things from a scientific standpoint means to take an inventory of them—to find the process in which they are being produced; to connect them with other things; to see things in their causal process. He does not understand the system of education as it exists, because he does not know the educational value of its branches. The education he proposes

for us is for the purpose of complete living; but what is Spencer's definition of this complete living? Spencer does not take education as the genesis of man's spiritual life, but merely as something useful for showing how to care for the body and perform the lower social functions as the tool of life, the instrument by which life is preserved. Now suppose the definition of complete living to be, to elevate each individual so that he can take advantage of the life and experience of his race. Then he would find complete living to involve the initiation into the civilizations of the past that furnish the elements out of which our own civilization is formed. Spencer thinks that the first business of the child is to know physiology; the next is the selection of a vocation or trade, which leads to training for citizenship; and last of all he puts relaxation and amusement, in which he includes literature and art. Now, Aristotle characterized man as the symbol-making animal. Human nature has to be expressed by symbols. The poets of a people first paint the ideal, which makes civilization possible. Literature furnishes the most essential branch of education, so far as its function is to help the child into civilization. Man sits in the theatre of the world (as Plato tells us) and sees the shadows of men and events thrown on the curtain before him. Behind him and out of his sight is the Great Leader, who is making these shadows. From them he draws his ideals, but ideals are potentialities, not realities. Self-activity, the freedom of the soul, is made possible by the institutions of society, the family, civil society, State and Church. We must not confound the mere school with these other great institutions of civilization. In the family are learned the mother tongue, habits, and nurture. Civil society teaches him his vocation; the State, his duties as citizen; and the Church shows him his place in the divine plan of the universe. Spencer calls education the subject which involves all other subjects, and the one in which they should all culminate. But some one has better said that school education is the giving to man the possession of the instrumentalities of intelligence. By his school education he does not attain all education, but he gets the tools of thought by which to master the wisdom of the race. There are, then, three epochs of school education—*elementary*, *secondary* and *higher*. The first or *elementary* stage is the opening of the five windows of the soul. (1) Arithmetic is the foundation of our knowledge of nature, by which we measure and count all things inorganic. When its first principles are mastered the child begins to want to combine the organic with the inorganic, and then we come to another window (2), that of elementary geography. The distribution of animal and plant life is learned, and the child begins to peep into the organization of things, the growth of plants, and the formation of the continents and the earth. Thirdly, he

learns to read and write, and gets a glimpse into literature. The original colloquial vocabulary learned at home, variously estimated at from 300 or 400 to 3,000 or 4,000 words, deals only with commonplace things. But the school takes this colloquial vocabulary as a key and opens up the great reservoir of literature in books, initiating him into a higher class of words, expressive of fine shades of feeling and thought. Thus, to his own vocabulary are added those of great writers, who have seen nature from a different point of view, and presented their thoughts in gems of literary style. Literature lifts up the pupil into the realms of human nature and discloses the motives which govern the actions of men. Yet Spencer puts this last in his course of study. After learning all science has to give, after learning one's trade and the care of his body, he would then, if there is leisure, permit literature and art. But literature is the greatest educator we have. It has made possible newspapers and periodicals and books, with pictures of human life and of the motives governing our actions. The fourth window of the soul is grammar, wherein we have a glimpse of the logical structure of the intellect as revealed in language. The fifth window is history (that of his own country), wherein he sees revealed the aspirations of his countrymen, his own nature, written out in colossal letters; and these five studies should make the elementary education of the student. The *secondary* education takes up human learning and continues it along the same lines namely: 1, inorganic nature; 2, organic nature; 3 literature (the heart); 4, grammar and logic (the intellect); and 5, history (the will). Algebra deals with general numbers, while Arithmetic has definite numbers to operate with. Geometry and physics continue inorganic nature, while natural history continues study already commenced in geography. Then come Greek and Latin, and here is opened up a great field of study into the embryology of our civilization. In the dead languages we have the three great threads running through the history of human progress. The Greek, with its literature and æsthetic art and its philosophy, showing the higher forms of human freedom in contrast with the Egyptian, which showed only the struggle for freedom and never the man separated from the animal and the inorganic world. The Roman, with the continual gaze upon the will of man, seeks the true forms of contracts and treaties and corporations, whereby one man may combine with another, and it essays the conquering of men and reducing them to obedience to civil law, not only external conquest but internal conquest as well. The Hebrew thread is the religious one, which we recognize in the celebration of worship one day each week and in the various holy days. We acknowledge this the most essential thread of our civilization. So, with the secondary education we begin to get the

embryology of our forms of life. The higher or *collegiate* education is the comparative step of education. Each branch is studied in the light of all the others. Natural science and sociology are investigated; logic and mental philosophy; ethics and rhetoric; as well as the philosophy of history and of literature, and the comparative sciences, which furnish the light for the whole method of higher education. The first or elementary education, then, is but superficial, a mere inventory; the secondary insists on some reflection on what has been learned; and the third, or higher education, is the unity and comparison of all that has been learned, so that each is explained by the whole. Give the child possession of the embryology of civilization, and his insight into the evolution of civilization is insured. Educators have adopted the course of study as it exists, led by an unconscious or blind impulse. Herbert Spencer should have investigated and discovered its purpose, which is a far deeper one than he has thought out when he advocates its overthrow for the sake of knowledge that leads to direct self preservation.—

Johns Hopkins University Circulars.

MILTON AS AN EDUCATOR.

By THE REV. PHILLIPS BROOKS, Boston.

The subject of which I wish to speak to you belongs to the *History of Education*. That is a region into which any student may enter without being an intruder—and I begin by saying how desirable it seems to me that those who are training themselves, or who are being trained, for teachers, should study, as it is not usual for them to study now, the history of education. No man to-day can practice any of the higher arts to the best effect unless he knows the history of that art. Our life becomes extemporized and fragmentary unless each man taking up his work in the world not merely attaches his work to the work of those who went before him and begins where they left off, but also knows something of the way in which his art came to reach the point at which he finds it, and so is able to make the labour which he adds, a part of one consistent and intelligible progress. We want to know the blunders men have made, that we may not make them over again; we want to know the grounds of the partial successes they have achieved, that we may help to carry forward these successes toward their full result. Let me remind you what are some of the values that belong to the study of the history of education. First, there is the great general value of experience. To know what other men have done in the department where you have been set to work will make it unnecessary that you

should go over again what they have already done. The student of the history of education finds to his great surprise, that many of the educational ideas of his own time, which seem to him all fresh and new, were found out long ago, were used a while and then were lost again, only to be rediscovered at this later day. A wiser study of educational history would have made this rediscovery unnecessary, and so saved time and strength. If every generation has to begin and prove over again that two times two is four, what generation will ever get beyond the proof that ten times ten is one hundred? And then, again, to know how different studies came to be introduced would often throw great light upon the values of those studies. There can be no doubt many studies have been introduced legitimately, for reasons which were very strong, but which were temporary, and then have remained like ghosts haunting our schools long after their living necessity had died away. It is always hard to get any study out of our schools when it is once in. Each teacher learning it as a boy is naturally ready to teach it as a man. As John Locke says, "It is no wonder if those who make the fashion, suit it to what they have and not to what their pupils want." Here, surely, is the key to a great deal of the conservatism and traditionalism of our teaching; and the surest way to break it down and to get rid of it would be such a wise study of the history of education by those who are to teach, as should show them how the studies which they find in school came there, and so help them to judge whether those studies are to be dropped as temporary necessities which have been outgrown, or to be kept forever because they are forever useful.

Think, if you will, what light the history of education would throw upon the violently debated question of the value of methods of classical training. Was ever question so stupidly discussed as that has been? It has been debated as if it had no history. But everybody who thinks about it sees at once that the strong hold which our methods of teaching the Latin and Greek languages have upon our schools comes in large part from the length of time for which they have held their ground. They come to us from mediæval times. But when we go back to see what first gave them their prominence, we find, to quote the words of one of the noblest of educational historians, that—

"In the middle ages Latin was made the groundwork of education, not for the beauty of its classical literature, nor because the study of a dead language was the best mental gymnastic or the only means of acquiring a masterly freedom in the use of living tongues, but because it was the language of educated men throughout western Europe, employed for public business, literature, philosophy, and science; above all in God's providence essential to the unity and therefore enforced by the authority of the western Church."

But I only instance this as one chance illustration of the value of the history of education. I come now to what I want to make my subject for this lecture. I want to open with you one page of that history and see something of what is written there. I want to speak of the education, and especially of one great educator, of two centuries ago, and see if we can learn anything from him. I turn to this period with special interest, not merely because it is the one which has most attracted my own study, but because it is one that so profoundly merits the study of us all. The seventeenth century is really the first thoroughly modern century of English life. The seventeenth-century Englishman is the earliest English being whom we of the nineteenth century can easily and perfectly understand. It is not so in the century before. The men and women of the Tudor times are different and distant from us. They are as little modern in their character as in their dress and manners. But with the opening of the seventeenth century, almost taking us by surprise, we come on men whom we can comprehend—whose whole look is familiar to us. Who does not feel the difference between Cardinal Wolsey and Cromwell in this regard? One is all mediæval and the other is all modern. Eliot, Hampden, Pym, Laud, Falkland—all the men of the Civil Wars, whether they were Royalists or Puritans, have this new intelligibility. We have evidently crossed the line and are in our own land. They are hardly farther from us—in some respects they are not so far from us of New England—as the men of the last century, the men of our own Revolution. If history were taught among us as it ought to be, I think you will agree with me that there is no period of all the history of the world that ought to be taught to our New England youth more fully than that which is most like our own, and most intelligible to us, and the richest in seeds of fruits which we behold to-day—the seventeenth century in England.

Now in the midst of this great century there stands forth in England one picturesque and typical man. The strongest ages do thus incorporate their life in some one strong representative, and hold him up before the world to tell their story. And the most typical man of English seventeenth-century life was John Milton. I am drawn to him be-

cause of his connexion with the history of education, which I shall speak of by and by. But before I can speak of that, I must remind you of how in general Milton embodied in his life all these characteristics which make the seventeenth century strong and positive in history as we look back upon it. Not even Cromwell so largely embodied all its qualities. "He was," as Professor Seeley strongly says, "the most cultivated man of his time, perhaps we might say the most cultivated man that ever lived in England", but his culture was all of that best sort which humanizes instead of unhumanizing its subject, and makes it more and not less a representative and specimen of the time in which he lives. Milton was born in 1608, on the 9th of December, at a quarter past six in the morning, at the Spread Eagle in Bread Street, in London, where his father was a prosperous scrivener. That father had been disinherited by his father because he had become a Protestant, and a Bible had been found in his chamber; already there was protest and reform in the blood. He entered at Christ College at Cambridge when he was fifteen years old, and left before his course was finished, in some sort of mysterious disgrace. One of the endless discussions of his biographers is whether he was flogged in college. Dr. Johnson, who does not like Milton, declares he was, but it seems doubtful; still he might have been, for flogging in the colleges was not yet obsolete, and there was that soul in the audacious schoolboy which always brings the schoolboy's body into peril. But he left college, and in a few years went abroad upon that European journey which is almost a prominent event in English literary history. Before he went, he had already written *Comus* and *Lycidas*, the *Allegro* and *Penseroso*. Upon the Continent he saw great men, and they made much of him. In Paris he saw Grotius; in Florence, the imprisoned Galileo; in Rome, the Cardinal Barberini. He made friendships that lasted all his life, and he filled his mind full of knowledge. But just as he was planning to go on to Sicily and Greece, the news of the Civil War at home came to him and, Englishman that he was, he hurried home. Just with the same spirit with which so many of our young men who seemed lost in the fascination of foreign study turned at the earliest drum beat of our war and hurried home that the war might not fight itself through without them, so Milton turned and left beloved Italy behind him and hurried home to give the Parliament and the Commonwealth the help of his pen and, if they needed that, of his sword, too. Here he became at once the champion of the popular cause. He laid poetry aside, and for the next twenty years the press teemed with his pamphlets. He wrote against the bishops, against royalty, against the church. He pleaded for the freedom of printing, for the right of rebellion, and, having his own home reasons for turning his thoughts

that way, for the liberty of divorce. After a while he was Cromwell's Latin secretary, and gave the great Protector his best praises and help. So things went on, with Milton's heart and pen always in the very thick of them, until Oliver died, and then the melancholy Restoration came. The great champion of liberty became silent, and escaped the penalties of all the past years—nobody has ever been able to make out just how. He was blind now, and getting old. But *Paradise Lost* was yet to be written before he could have liberty to die. It was written in silence, and the world hardly took more note when it was published than it does when the sun rises. Then came the *Paradise Regained*, and then the *Samson Agonistes*, the last great outcry of his passionate heart; and then at last, on Sunday, the 8th of November, 1674, he died in peace, and was buried in the chancel of St. Giles, Cripplegate, where probably his bones are lying still.

He was the most typical Englishman of the most typical and strongest English time; and this might interest any one who had red English blood running in his veins. But he especially belongs to us—he has his place here among those who are interested in education, because this typical Englishman was a schoolmaster, and one of the most thoughtful and suggestive reasoners on education that the English race ever produced. He is near enough to us to let us understand him, but he is far enough away from us to let us look at him with something of romantic feeling, as we think of the greatest of Englishmen sitting with a dozen boys about him, not merely teaching them, but reasoning about their teaching, looking over their heads and seeing the distant visions of the perfect education of the future, as true a poet when he sat in the teacher's chair as when before his organ he chanted lofty hymns and told the story of eternities. It came about in this way. Milton returning from Italy when the Civil War broke out, found in his father's house two children of his widowed sister, Mrs. Philips—Edward and John—and he began to teach them. Soon other boys, sons of his friends, came in, and his last biographer, Mr. Masson, who has left little for any one coming after him to learn of Milton, has gathered up, in all, traces of twenty or thirty youths who at one time or other were the great master's pupils. The school was always in the teacher's house, first in Aldersgate Street, where it was what his pupil Philips describes as a "garden house at the end of an entry"—a quiet spot, no doubt, with a little plot of ground, up a sleepy court, in what is now the very heart of "streaming London's central roar," and then afterwards in a house in what was called Barbican, where, when he was once settled, his pupil writes, "the house looked like a house of the Muses, though the access of scholars was not great." It certainly seems not very inspiring.

Philips tried hard to show that his uncle never was a common teacher.

"Possibly his proceeding thus far in the education of youth," he says, "may have been the occasion of some of his adversaries calling him pedagogue and schoolmaster, when, as it is well known, he never set up for a public school to teach all the young fry of a parish, but only was willing to impart his learning and knowledge to relations and to sons of some gentlemen that were his intimate friends."

And Dr. Johnson, churchman and loyalist, who never liked the great independent and rebel, says of his school, that "from this wonderful working academy I do not know that there ever proceeded any man very eminent for knowledge." But still the fact remains that Milton had his school, and really taught it, that he wrote a Latin accident, that he planned from time to time a scheme of a great school; that the strong hand that wrote the *Samson* flogged his pupils till they roared, and the genius that conceived *Paradise Lost* knew nothing unworthy or incongruous in the schoolroom drudgery.

Just think of being Milton's scholar! Every art slips down into technicalities and loses its first inspiring principles. It cannot keep the grandeur of *ideas*. What technical skill the great teacher of Aldersgate Street may have had, what discipline he kept, how he managed his markings and rankings, we cannot know; but at least we are sure that in that dingy room, with the dingy London roses blooming outside the window, the *ideas* of teaching, the *ends* of scholarship, the *principles* of education, never were forgotten or lost out of sight. No doubt we should see and feel this for ourselves if it were possible for us to open the old schoolroom door and go in and sit down among the scholars, where the great master, waxing dimmer of sight and getting on towards stony blindness every day, should not discover us. But this we cannot do, and so we are glad we can turn away from the mere mention of Milton's actual school teaching, which is so unsatisfying, and find that he has written down for us what he thought and believed about school-teaching in his famous tract on *Education*. There was in Milton's time in London a well-known gentleman by the name of Samuel Hartlib. He was the son of a Polish merchant, who had married an English lady and settled himself in England. He seems to have had a fresh, bright, kindly mind. Everybody knew him; he interested himself in everything that was live and good; he talked with everybody who had anything to say. Every great city has just such men—we know such men in ours. This gentleman had often talked with the great schoolmaster about education, and was very much interested in what Milton said; and he had begged Milton often, as they sat together talking, to write down what he was saying, so that it might not be lost. The busy Milton at last complied, and the result is that we have a dozen pages of his stately prose, in

which he pictures his ideal of school-teaching and gives us, it is safe to say, a prospectus of philosophic education within which almost all the progress of our modern schools has been included, and which it is very far yet from outgrowing. Surely it will be interesting to look at his ideas in the light of modern developments. I know how often practical teachers are impatient of new theories. They do not love to listen to a mere philosopher who sits in his study and tells them what a school ought to be. But remember, Milton's ideas were not wholly theories. He had seen some practice. And remember, too that if the teacher's art be in any high sense an art at all, it must have a philosophy behind it. If we would not allow it to sink into a mere set of rules, and depend for its success on certain mere tricks or knacks, it must forever refresh itself out of the fountain of first principles and inspire itself with the contemplation of even unattainable ideals.

This leads us to a brief sketch of the main thoughts which this essay of the great Englishman contains. I am surprised, when I enumerate them, to see how thoroughly they are the thoughts which all our modern education has tried to realize. Here they are fully conceived in the rich mind of the representative man of two centuries ago. This is the value of his treatise in the history of education.

Milton's ideas, then, about education are really reducible to three great ideas, which may be thus named: *naturalness, practicalness, nobleness*. These are the three first necessities of education, which he is always trying to apply; and what has modern education done more than this?

First, let us see what he makes of *naturalness*. His whole tract was a protest. He was always a protester, as every enthusiast and idealist must be. Education, as he found it, was unnatural. It was all *a priori* and deductive. Not yet had the Baconian methods invaded the schoolrooms of his land. Milton raises his voice in behalf of an education that should read its rules in the *nature* of the scholars who are taught. See what some of the illustrations are: He pleads for the study of the *concrete* as necessarily previous to the study of the abstract.

"I deem it to be an old error of universities," he says, "not well recovered from the scholastic grossness of barbarous ages, that instead of beginning with arts most easie, and these be such as are most obvious to the sense, they present their young unmatriculated novices at first coming with the most intellective abstractions of logick and metaphysicks";

and he goes on to show such an unnatural beginning leaps either to an ambitious and mercenary or ignorantly zealous divinity, or to "the trade of law grounded on the promising and pleasing thoughts of litigious terms, fat contention and flowing fees," or to a statecraft with "souls

unprincipled in vertue and true generous breeding." Again he believes thoroughly that the right knowledge, rightfully given, is a joy and not a disgust to the mind that perceives it.

"I doubt not but that ye shall have more adoe to drive our dullest and laziest youth, our stocks and stall, from the infinite desire of such a happy nature, than we have now to hale and drag our choicest and hopefulest wits to that asinine feast of four thistles or brambles which is commonly set before them, as all the food and entertainment of their tenderest and most docile age."

It was a time of good, strong, plain words,—and Milton was a man of his time.

Again, no apostle of the new education has ever more exalted *observation* or the organ and method of instruction.

"I should not then be a persuader to them of studying much when, after two or three years, they have well laid their grounds, but to ride out in companies with prudent and staid guides to all the quarters of the land, learning and observing all places of strength, all commodities of building and of soil, for towns and tillage, harbours and ports for trade. . . . These ways would try all their peculiar gifts of nature, and if there were any secret excellence among them would fetch it out."

To learn the concrete before the abstract, to learn by appetite and not by compulsion, to learn as far as possible by observation and not by hearsay—tell me, have our schools so fully realized and accepted these great principles of learning, that we can hear them laid down clearly and absolutely by a teacher of two centuries ago without surprise? Is our education so true to nature that we can help wondering to see how he believed in the necessity of *naturalness*?

The second characteristic of all Milton's ideas of education was its *practicalness*. This stands out in his very definition of education:

"I call therefore a compleat and generous education that which fits a man to perform justly, skilfully, and magnanimously, all the offices, both private and public, of peace and war."

It is Miltonic in its comprehensiveness, but it is altogether practical. As his education must issue from the *nature* of man, so it must come home to the *use* of man. Again see the illustrations. He has no patience with the teaching of language for its own sake. All that folly, still prevalent among us, which begins to teach a boy Latin and Greek, not as if it aimed to introduce him to two noble literatures, but as if it intended to make him a grammarian and philologist, so busying itself at once with all the niceties of grammar,—all this he could not bear.

"Though a linguist should pride himself to have all the tongues that Babel cleft the world into, yet, if he have not studied the solid things in them as well as the words and lexicons, he were nothing so much to be esteemed a learned man as any yeoman or tradesman competently wise in his mother dialect only."

Things and not words was the watchword of the seventeenth century—and, once more, Milton was a man of his time. In all treatment of the languages, we want to remember that Latin was still a tongue of use. Was not this very Milton Latin secretary to the Protector?

Another idea of his was that boys should learn their Greek and Latin by reading books which were themselves manuals of science, and so seek *language* only in seeking something farther on, the knowledge of the *things* of which the world was made. Cato, Varro and Columella, Celsus, Pliny and Solinus, Hesiod, Theocritus, Aratus, "and the usual part of Virgil,"—these are the books from which boys were to learn their Greek and Latin. We may not think the plan a good one, but at least it indicates the *practical* character of all his scheme. He claims strongly that English boys ought to be educated in England, and would only let them travel when they have come to "three or four and twenty years of age."

"Nor shall we then need the *monsieurs* of Paris to take our hopeful youth into their slight and prodigal custodies, and send them over back again transformed into mimics, apes, and kishoes."

When we read this, we feel like crying out with Wordsworth "Milton, thou shouldst be living at this hour." Would that he might preach this doctrine to our American fathers and mothers! I must not dwell on other of his practical ideas,—but they are many. He would employ experts to teach the several arts,—

"procure as oft as shall be useful the helpful experiences of hunters, fowlers, fishermen, shepherds, gardeners, apothecaries, and in the other sciences, architects, engineers, mariners, anatomists, who doubtless would be ready, some for reward, and some to favour such a hopeful seminary."

His rules for exercise would satisfy the most eager champion of physical culture. Everywhere it is the *man*, the *citizen*, he wants to make. Mere aimless scholarship will not content him.

The third of the prevailing ideas of Milton's education I call *nobleness*. We are struck instantly with the lofty tone that breathes through all. "Enflamed with the study of learning and the admiration of virtue"; so sounds his royal phrase. "Infusing into their young breasts such an ingenuous and noble ardour as would not fail to make many of them renowned and matchless men,"—so he declares his purpose. It was a noble age. Enthusiasm was in the air. Marston Moor and Naseby were fresh household words. Puritanism, which Carlyle calls "the last of all our heroisms," was at its best. And Milton's heart and soul was in it all. Besides, he was a poet; and a poetic elevation, a constant sense of all the deeper meanings and loftier purposes of human life, was in all he thought and said. While he was

929
musing, the fire burned, and then he spake. In days like ours, when there is so much to make us fear, in all the high development of education, a certain decay of nobleness, a certain prosaical minuteness, a certain sordidness, a certain dry economy—in our days, when the highest culture is distrustful of enthusiasm, when eloquence is not in favour in our schools, when the average teacher is more afraid of exuberance than of dryness in his pupil, when a sort of aridity is felt upon our fields of education—in such a time there is nothing better for us to study than the *nobleness* which the poet-teacher always flung like an atmosphere about all his thoughts on the true training of the young. "Stirred up with high hopes of living to be brave men and worthy patriots, dear to God and famous to all ages,"—those are his words about his imaginary scholars. If they seem strange and sentimental to us of this later century, it is well for us to ask whether we have not lost something that made them real and natural to him.

Of the methods of Milton's noble education I must not speak at length. The schoolhouse that he dreams of is a "spacious house and ground about it fit for an academy." There his scholars were to make ~~their home up to~~ the limit of their general education. They were to be taught "the exact use of their weapon, to guard and strike safely with edge or point," so to be kept "healthy, nimble strong and well in breath, as the likeliest means to make them grow large and tall, and to inspire them with a gallant and fearless courage." In the Puritan's scheme there is no mention of any of the fine arts but one. Their times of rest between labours and before meat were to be

"taken up in recreating and composing their travailed spirits with the solemn and divine harmonies of music heard or learnt—either while the skillful organist plies his grave and fancied descant in lofty fugues, or the whole symphony, with artful and unimaginable touches, ardour and grace, the well-studied chords of some choice composer; sometimes the lute or soft organ stop waiting on elegant voices either to religious, martial, or civil ditties."

And after meat, music again "to assist and cherish nature in her first concoction." Then again they are "to be reduced in their nightward studies wherewith they close the day's work under the determinate sentence of David or Solomon, or the Evangelists and Apostolic Scriptures." We may not think it well to have our scholars rest and digest to organ notes; but these are only touches which show the effort after nobleness, the moral and poetic loftiness which fills the master's whole idea. And over all and under all there is that love of responsible liberty which "was the passion of his soul."

• Naturalness, practicalness, nobleness—these are the words which characterize this ideal education. The whole plan is pitched upon the

highest key. The ease with which he talks of vast achievements takes our breath away, and has made educators and critics turn away from this remarkable tract with something almost like contempt. Milton talks of how "some other day might be taught them the rules of arithmetic and the elements of geometry, *even playing*".

And again he says that "either now or before this they may have easily learnt at any odd hour the Italian tongue." Political economy and a few Greek tragedies are thrown in as mere trifles. It is not a scheme to be perfectly carried out in any ordinary high school, with average teachers and average scholars. Indeed, it is not a scheme to be perfectly carried out anywhere by anybody. Milton himself believes that "this is not a bow for any man to shoot in that counts himself a teacher, but will require sinews almost equal to those which Homer gave Ulysses." But where the special methods fail, the spirit still survives, and is what we want in our education now, as much as Milton saw that it was wanted then.

It is interesting to see how certain of the problems that are uppermost among us did not trouble the speculations of our philosopher then at all. They had not loomed up into sight. In that ~~religious age~~ question of religious and secular education was not mooted. Education was presumably and necessarily religious. The Bible was the first of school books. "After evening repast, till bed-time their thought will be best taken up in the easie grounds of religion and the story of Scripture." In that *Puritan* age art education had not taken the place in the schools which it is only now venturing to claim. The fine arts were prostituted to court influence, and the relation of art to industry had scarcely been at all explained. In that *masculine* age, the question of woman's education was unknown. The Salic law still ruled in letters. A few great ladies of the previous century had shown as scholars. Roger Ascham—a man whom every student of the history of English education knows full well, and whom every teacher ought to know—had written, almost a hundred years before, his excellent account of Lady Jane Grey's scholarship and delight in learning. But Milton never talks except of boys. He was a man's man in a man's time. The higher education of all women and co-education still were to slumber for two centuries before a higher civilization and a deeper social life should make them the problems of the time.

So there was much with which he did not deal; but by the spirit of which his tract is full, these questions which were not yet born must find at last settlement. We have seen how broad his spirit was. His principles were universal. It is a fact which ought to interest every educator, from the teacher of babies to the presidents of colleges, that

the great philosophers, what we may call the ruling minds of the last four centuries of English thought, have all given us treatises on education; and nothing could more let us into the different lives of those strangely different centuries than those pictures of the education of their time. In the sixteenth century we have Francis Bacon's second book of the *Advancement of Learning*. In the seventeenth century we have John Milton with his *Tractate on Education*. Really belonging to the eighteenth century, we have John Locke *On Education*, too; and in our own nineteenth century it would be hard to find a more characteristic book than Herbert Spencer's treatise on the same great subject. Bacon protests against narrow mediævalism, and pleads for larger views of usefulness and what is useful. Milton we have already heard. Locke rebels against the old tyranny of grammar teaching, and believes (brave idealist that he is!) that virtue can be taught at school. Herbert Spencer sings the praises of natural science, and demands a discipline more in harmony with the constant laws of human nature. In every age each philosopher tells essentially the same needs. Naturalness, practicalness, nobleness, are always becoming clouded, always in danger of being lost. And if they are lost, just so far as they are lost, education withers, becomes small, special, formal—ceases to represent and train our time, and lays no strong foundations for the times to come.

It is for me to leave it to you who listen to me, the teachers of schools, men and women who know what education is among us, to judge whether these first principles of education ~~stand to-day~~. With ~~them~~ education ripens or withers. They have been the anxiety of philosophers always; they must be your anxiety now, and you must know how they are prospering in the midst of all the hubbub of experiments and theories. But for myself, certain impressions come very strongly out of the study in which we have engaged. I am struck with the simplicity of the problems of education at the bottom. They seem to change, but always they are the same; they all come at last to these first principles in every age. And I am impressed again with their difficulty. The simple is always the difficult. Reduce every problem to its fundamental principle, and then for the first time you stand face to face with its difficulty. Then you see how hard it is. When we see that that over which the philosophers have puzzled in every age, has been in every age the same, then we realize that it must be no child's question to be settled in a flippant hour. And yet again, it makes education seem more *human*. I cannot think of it as an art, a technical and separate thing, when I see how the great human minds have always pondered it. Clearly, the more we are true men and women, the more worthy we shall be to deal with it.

And once again, before I close, I urge the need of more study of the history of education. Poor, extemporized things our schools would be without our great seventeenth century educator: and men like him must not be strangers to us. Our normal scholars must not be allowed to think that education began with their teachers, or their fathers. The teacher must work out of the inspiration of a world long past.

And through it all, as we read it, we shall trace these lines—the craving for naturalness, and practicalness, and nobleness. They are nothing new, but they can never be too old. Through the gray pavement of the streets of Venice run two threads of white marble, by which the traveller, lost in the intricacy of the mighty city, cannot fail to find his way to the Rialto, where the centre of the city's business lies. So through all education run these three threads, by which he who follows patiently shall come at last to where truth is most truly and richly taught and learned.—*Journal of Education, New England.*

AGAINST BEING TOO PRACTICAL IN TEACHING.

By H. G. WELLS, B.Sc., *Fellow of the College of Preceptors.*

When it is advanced that men may be too practical, it is, of course, 'practical' in an acquired and less worthy sense that is intended. The beginning and end of all human matters is to satisfy some human need, and not to be practical in its nobler sense is to cut adrift from humanity. But we very often meet with men calling themselves 'practical men' as an elegant covering for unsystematic and empirical ways, and with an idea of recovering a disadvantage against men of wider method and larger view,—of which viler practicalness there seems nowadays a mischievous excess, and we would therefore discuss it a little in an analytical and would-be destructive spirit.

This objectionable 'practical' finds its commonest expression in a noble scorn of words. The 'practical' man can use them freely for no other purpose than in their own scourging—as though they were flagellants. He bears them a magnificent grudge, studiously misuses them, and shows by word and act his contempt for his birthright as a reasonable creature. And books, which are aggregates of words, are so much the more depreciated by him. The essential of his false practicalness consists in an incapacity, disguised as an aversion, for symbolical methods. The practical man condemns mental, because they are not visible, material, means, protests at the interposition of mathematics in physics and astronomy, and is only really happy with knowledge that has no interdependence and no alarming possibilities of abstraction. He

loves facts, especially curious and uneuilluminating facts; and his loathing for 'theory' is unbounded. 'Theory' is the wide realm of human interest that the practical man, through neglected opportunity or mental insufficiency, cannot understand. To act upon an inference, to determine anything except by way of trial, is theorizing, and therefore objectionable. He has a curiously narrow view of human power and possibilities, because he cannot imagine what he has not witnessed. In all matters of opinion he believes with the majority. In art he relies on the power of conscientious work, and thinks that faithful representation is the essence of a good picture. And in questions of morals, in cases for self-denial or generosity, his sordid practicalness trails across all his conduct. Rarely a professed doubter—from practical reasons—he is yet the typical and only absolute materialist. In short, in the worst cases his practicalness is something that cramps his imagination, defiles his conduct, and crows his initiative, and stands always at hand to remind him of the meaner things of life.

Just at present there is a strong tendency in some quarters to treat the Science and Art Department ungratefully, to ignore really splendid groups of schools and the new class of teachers it has created, and to set up in competition with it technical schools, 'practical' technical teachers, and examining bodies of dubious capacity, by which a short cut to each of the skilled trades is to be presently opened up. We do not wish to deny the need for technical education, but there is no doubt that local practical men are here and there promoting the development of technical education schemes in a manner that will result in numberless boys and girls, attending classes in technical science for which they are unprepared, who might and would otherwise be far more profitably employed in studying the first elements of science and drawing.

As another instance of being too practical, comes that sapient creature, the 'practical' teacher. He is the man who, when in a Board school, imagines the highest expression of a teacher's skill is in keeping his registers well. But he is really only found in his magnificence in the middle class school. The secondary school variety despises training, despises a knowledge of psychology, despises method, despises and hates examinations. The fearful ignorance of their trade, due to a contempt of 'theory' among middle-class and public school teachers, can hardly be exaggerated.

And here one may note, as, doubtless, the result of the 'practical' fallacy, that the Normal School factor in the Royal College of Science, which exists professedly for the training of science teachers, has no lecturer in education or method attached to its staff. Necessarily his

employment would be mainly a dealing with the presentation of thoughts and words, and this would be heretical departure from the great gospel of 'things only,' that the practical man, inverting the old educational error with the idea of making it truth, incessantly preaches. So that the South Kensington *alumni* of a modest disposition seek method painfully elsewhere, while the bolder spirits trust to inspiration, or treat their scholars to imitations of their favourite professors and are little Huxleys without wit, Boys without dexterity, and Judds without substance, and teaching becomes, through the influence of the practical man, not an applied science, but a tradition of manner.

Finally, we have the practical error in its simplest and worst form in the 'bread-and-butter' teacher, the man who goes through a prescribed performance before a class to secure himself food, raiment, and shelter. He thinks it wisdom to keep himself alive.

A wiser and wider practicalness would show him that these things, that he esteems ends, are but means; that his teaching is not for him to live, but that he lives to teach; that the reality worth striving for is not assimilation, but acts; that the end of science teaching is the propagation of truth rather than the multiplication of results, and that the end of art is beauty.—*Abridged from "Science and Art."*

YOU.

The Chinaman praiseth his T's.

The mandarin praiseth his Q.

The gardener praiseth his turnips and P's,

But I praise U.

The mariner loveth the C's,

The billiardist loveth his Q.

The husbandman loveth his cattle and B's,

But I love U.

The foolish have need of the Y's,

The actor needeth his Q.

The pilot hath need of two excellent I's,

But I need U.

The huntress seeketh the J's,

The shepherd seeketh his U.

The college boys seek their final "B-A's,"

But I C Q.

—LAPHSON SMILES (*in Jnl. of Edu., N.E.*)

CORRESPONDENCE.

To the Editor, Indian Journal of Education, Madras.

SIR,—The reviewer of my book in your Journal begins his review proper with an assertion on the rationale of qualitative analysis. I do not know if he can cite one authority in support of what he asserts to be the whole rationale of the subject. Though he says that I have failed to achieve my object, I am glad to find that the reviewer of my book in 'Nature,' the leading scientific weekly in England, says that "the author adheres well to his purpose of showing why any particular operation is performed." Though certain omissions "limit the sphere of usefulness of the book," they do not prove that it is of no use to those students for whom it has been written. On the other hand Mr. C. Krishnan, B. A. (Cantab.), says: "I have read through the greater portion of it and have much pleasure in being able to say that it will prove of great use to those students for whose benefit it is written."

There is no attempt made to substantiate the sweeping assertion that I have bodily transferred two tables from two different books. I have the authority of Landauer for the plan adopted in Chapters XV and XVI. I have not met with any authority who says that the table in Chapter XVI is to be used only for mineralogical purposes and that it should not be used in the laboratory when examining a salt completely in the dry way.

I do not know if your reviewer can quote one passage from my book which goes to show that I regard all radicals as ions. It is astonishing to find one who poses himself as an authority in chemistry alarmed at the sight of equations. I should like to know what he means by saying that I have invented equations. If he means that my equations do not represent the actual reactions, why does he not point out one such equation?

Though the words H_2SiO_3 and *soluble* are respectively misprints for H_4SiO_4 and *visible*, yet the statement in which they occur does not become nonsensical. Every student knows that when silicic acid is precipitated from a solution, it may be either in the hydrosol state or the hydrogel state, and that in the latter condition it is gelatinous and insoluble.

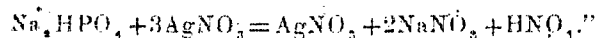
The reasons for believing in the formation of H_2CO_3 are given in the new edition of Watt's *Dictionary of Chemistry*. It is surprising to find one who regards himself as a chemist unacquainted with a fact which is met with in almost every good text book. (See Mendeleeff's *Principles of Chemistry*, Vol. I, pp. 370-71, and Ramsay's *A System*

of *Inorganic Chemistry*, p. 278). It is well known that the word *strong* is used in two senses in chemistry, and that an acid, such as acetic acid, though weak compared with the acids usually termed strong, is strong relatively to carbonic acid and will therefore displace the latter from its salts.

Gautier and Charpy on page 253 of their *Leçons de Chimie* (1892) say: "Tous les sulfates sont solubles dans l'eau à l'exception des sulfates de barium, de strontium, de calcium et de plomb." On page 129 of his *Principles of Chemistry*, Vol. II. (1891), Prof. Mendeleeff says that "the same salt (PbSO_4) is formed on mixing sulphuric acid or its soluble salts with solutions of lead salts, as a heavy white precipitate, which is *insoluble in water and acids*". Do you think any one will be justified in saying that Professors Gautier and Charpy have never used an aqueous solution of Sr SO_4 or that Prof. Mendeleeff has never seen lead sulphate precipitated from its solution in sulphuric acid? If the reviewer had patiently examined my book, he would have found that I have dealt with the solubilities of Sr SO_4 and Pb SO_4 in sufficient detail in their proper places. (See pp. 23 and 56.)

On page 6 of my book, it is said: "Pb, Cu, Bi, Sb, As, Hg, Ag, Au and Pt are either altogether insoluble, or only traces of them dissolve." There seems to be no reason for the suppression of the latter portion of this statement. On page 291 of Mach's *Naturlehre* (Ausgabe für Gymnasien, 1891), Dr. Brunner who has written the chemical chapter says: "Nur Kupfer, Wismuth, Quecksilber und die edlen Metalle werden durch Salzsäure nicht verändert." Perhaps Dr. Brunner also 'imagines' that copper is insoluble in hydrogen chloride. I am sure that your reviewer cannot quote one authority who says that copper is soluble in hydrogen chloride without the intervention of oxygen.

General statements of the sort I have made with reference to the salts of silver and bismuth are met with in standard treatises (see Fresenius' *Qualitative Analysis*, pp. 139 and 148). If the reviewer had read the line above the equation on page 19, he would then have seen no inconsistency between the statements made on pages 12 and 19 concerning the the precipitate produced by ammonium hydrate in a solution of silver nitrate. On page 135 of Thorpe and Muir's *Qualitative Analysis* (1886) we find: "Silver nitrate throws down yellow silver phosphate (Ag_3PO_4), *soluble in nitric acid* ... In the first case nitric acid is produced as shown below:—



Unless this is regarded as an error, what I have done with reference to aluminium and chromium phosphates cannot be said to be erroneous.

I should like to know where I say that sulphides of nickel and cobalt are soluble in dilute hydrogen chloride. I cannot understand what made the reviewer shut his eyes to the remaining portion of that marked 3 in the second part of the 'Method of Record'. He could have very easily ascertained whether there was any error by a reference to Chapter XIX. I have the authority of many chemists for using the table called the 'Method of Record' for the purpose for which I have utilised it. I have seen many precipitates float. Ammonia, though strong smelling, is fragrant. If chlorates can deflagrate and detonate for Landauer, they can deflagrate and detonate for me. The odour of vinegar is certainly sweet. If 'exert' means 'perform or do', as Webster says, I do not see why I should not speak of 'exerting an action or a function.'

In conclusion I beg to tell you that if I have erred, I have done so in the company of great chemists whose authority even your critic with his hasty temper and lack of scientific spirit will hesitate to question.

June 1893.

P. LAKSHMI NARASU.

To the Editor of "*The Indian Journal of Education*."

SIR,—The line of conduct which Mr. Lakshminarasu Nayudu has seen fit to follow since my review of his book on *Qualitative Analysis* appeared in the April number of the *Indian Journal of Education* is so unusual, not to say objectionable, that I feel the strongest disinclination to notice anything further which we may write. An author who feels himself aggrieved by the strictures passed upon his book addresses his complaints to the Editor of the Journal which, rightly or wrongly, he thinks has done him injustice, and in all cases such complaints, if temperately expressed, are inserted, along with any remarks the reviewer may have to make in defence of his criticisms. It is difficult to believe that Mr. Lakshminarasu Nayudu was ignorant of the course it was incumbent upon him to follow, but instead of adopting it, a very short time after the review appeared, a pamphlet, responsibility for which, though purporting to be the production of a person calling himself the Science Assistant at the S. P. G. College, Trichinopoly, Mr. Lakshminarasu Nayudu will find it difficult to escape, was widely circulated to persons likely to have read the review. The charge it brings against this Journal of making an unfair distinction between books written by natives and Europeans, ("when a book is written by a native it is decried as of "no value and full of defects whatever intrinsic merit it may possess," whereas "any work coming from the pen of a white man, however "worthless it may be, is reviewed in the most glowing terms" the author of the pamphlet states,) has already been sufficiently commented on in your

editorial columns, and I need only here mention some of the accusations levelled at myself. It accuses me of "gross unfairness and injustice" of making "baseless and unjust aspersions on the work" of "foisting on the "author statements never made by him," of "unfounded attacks," "wilful "suppression of the author's statements," "hollow, absurd, and unmerited "strictures," &c.; &c.

Mr. Lakshminarasu Nayudu is entitled to think that my review of his book proves me to be devoid of intelligence, as well as contemptibly ignorant of the rudiments of chemistry. He is also entitled to express that opinion in the strongest language he can command, and to further relieve his feelings by proclaiming me rash, impatient, prejudiced, unscientific, and unentitled to respect. Language of this sort is usual among people who are not accepted at their own valuation, and in Mr. Lakshminarasu's case should, therefore, be easily pardonable; but what is quite unpardonable is that he should impugn my good faith and call my honesty into question, and even go so far as to insinuate that I have adversely criticised his book from interested motives. The enormity of such a charge is equalled only by its absurdity, for it is impossible to conceive that anyone could have an interest in adversely criticising a trumpery publication like the *Notes on Qualitative Chemical Analysis*, and only the egregious vanity which induced the author to launch it on the world, under the belief that he was making a valuable contribution to chemical literature, could have suggested such a thing to his mind. Mr. Lakshminarasu by resorting to this method of defence has rendered the task of replying to his letter extremely distasteful, and if I overcome this repugnance, it is merely lest others, unacquainted with the circumstances of the case, should imagine his letter, because unanswered, to be unanswerable. I have, therefore, written the following remarks on Mr. Lakshminarasu's letter, and he may rest assured that they contain the very last word I shall write on the subject.

The author in his letter, disputes nearly every statement made concerning his book in the course of the somewhat lengthy criticisms to which I subjected it. Sometimes he confines himself to a simple reassertion of the statement to which exception was taken, while in other cases he adduces arguments or quotes authorities in support of his contention. I have too much regard for my own time as well as the patience of your readers to reply on every one of these points, but shall confine myself to those which can be answered most briefly. Before addressing myself to this task, I desire to congratulate the author upon the improvement in his knowledge of chemistry which has taken place since the pamphlet already alluded to was written. He has found it convenient to vacate some of the positions he there took up. He was, for instance, ignorant of the use to which a solution of strontium sulphate is put in analysis. "We have searched in vain the works of Fresenius, Dittmar, and Valentin" the pamphlet says, "it only remains for the critic to tell us how he uses it." Perhaps, since these words were written he has

also searched a little book called Jones' Owens' College Junior Course of Practical Chemistry, a book of which, since it is recommended by the University for the use of the students he is engaged in preparing for the B.A. degree examination, he may have heard. Perhaps, too, his laboratory is now provided with a bottle containing this useful reagent, and he has become expert in using it.

In reviewing the book I wrote as follows:—"A better instance of the want of system and absence of rationale than that presented by the two chapters numbered "XVI., it would be impossible to find. The former, (which ought to be numbered "XV.), is entitled 'Preliminary Examination of a Solid,' while the latter contains "a 'Systematic Examination of a Solid Substance containing only one Basic and one "Acid Radical.' These two tables have clearly been transferred bodily from different books, the only portion which is supplied by the author being the heading of "the second table, which, by the way, is decidedly misleading. The book from "which the first table is taken is on Qualitative Analysis, that which furnished the "second on Blowpipe Analysis. These tables do not, as the author seems to think, "deal with different parts of the subject he is writing on, nor is the second table "in any way complementary or supplementary to the first; they are simply two "alternative methods for examining substances, the former being that practised by "students of chemistry who work in laboratories, while the latter is employed "chiefly for mineralogical purposes, when the use of solutions is by force of cir- "cumstances frequently precluded. The introduction of the second table into a "book of this nature is entirely out of place, wherever inserted; in the position it "occupies it can only puzzle and mislead the student." In reply to this, with an audacity which is simply amazing in its magnitude, the author writes, "There is "no attempt to substantiate the sweeping assertion that I have bodily transferred "two tables from two different books." Will it be believed that the first of the two tables referred to, that commencing on p. 103, is taken bodily from Valentin's Qualitative Analysis, while the one which follows is taken from the English translation of Landauer's Blowpipe Analysis? In the original the first part of this latter table is headed "Examination for Bases" and the second part "Detection of Acids," and the book states that the two together constitute a "Systematic Examination of Compound Inorganic Substances." Yet the author, with astonishing ignorance, imagines that they refer only to compounds containing "one basic and one acid radical" and affixes to them a heading which states this to be their purpose. And not only has he erred by mistaking the object and meaning of the tables, which led him to remove the heading and substitute an entirely incorrect and misleading one of his own invention, but in his further attempts to improve upon the original, he has committed a number of blunders all more or less absurd. Thus, in the book from which the tables are taken, the words "acetic odour" appear in place of the nonsensical expression "peculiar sweet odour (of vinegar)" which the author has substituted; by inserting "oxalates" in place of "carbonic oxide" he commits himself to the statement that the gas evolved when oxalates are heated with sulphuric acid burns with a blue flame; he repeats the tests for recognizing phosphoric acid and boric acid by the flame coloration they produce; and in quite a number of ways he exhibits his talent for blundering.

The author doubts whether I can quote one passage from his book which shows that he regards all radicals as ions. He does it throughout. In the chapters relating to "Acid Radicals" the radical of every acid is represented as the hydrogen salt minus the displaceable hydrogen it contains, and in the introductory chapter this

view appears to be expressed as clearly as he is able to express anything. When treating of sulphuric acid, for instance, he states that the acid radical is SO_3 , that being the group of atoms to which the name "sulphion" is usually given; similarly acetic acid and not acetyl he calls the radical of acetic acid; and so on throughout.

The statement that all the salts of bismuth and silver are colourless, which is met with in the author's book alongside of a description of compounds of these metals exhibiting every shade of the rainbow, is defended by asserting that general statements of the sort are met with in standard treatises. This is a feeble kind of apology for an error for which even greater ignorance of chemistry than the author's forms no excuse. Nothing illustrates the author's incapacity for the work he was so ill-advised as to undertake than the blind and unreasoning manner in which he copies anything he finds in print. He would rather believe what he finds in Fresenius than the evidence of his own eyes.

"If" says the author, "chlorates can deflagrate for Valentin and detonate for Landauer, they can deflagrate and detonate for me."* Here the author manifests once more, and in a conspicuous manner, the absence of that "scientific spirit," with a lack of which he reproaches me. For it clearly proves that he is prepared to accept as gospel any statement which occurs in a book, even without studying the book or comparing one statement with another, as I have been so kind as to do with his book. He did not, and still apparently does not, know the meaning of the terms detonate and deflagrate. In Landauer's little book on Blowpipe Analysis, of which, though he has made so much use, or should I say, misuse, his knowledge is anything but thorough, he found the statement that chlorates, nitrates, bromates, and iodates detonate when heated on charcoal. In Valentin's Qualitative Analysis, with which his acquaintance is still more limited, he ascertained that, in the conditions mentioned, these compounds deflagrate. Forthwith he jumps to the conclusion that the terms are synonyms, and as synonyms he employs them. Had he referred to p. 29 of Landauer's work he would have found the correct term, deflagration, employed; and if he had gone a step further and consulted the original German edition he would have found the same word, *verpuffen*, made use of throughout. But apart from this, the author ought to know that a most typical instance of deflagration occurs when a nitrate is thrown on glowing charcoal. An equally typical instance of detonation is when a light is applied to a mixture of air or oxygen with hydrogen. Surely the author should be able to recognize some difference between these phenomena. His plea that if he has erred it has been in the company of "great chemists" will scarcely cover such elementary ignorance as that displayed by confusion of words so distinct in their meaning.

In treating of the nature of precipitates the author states that "others, (e.g., H_2SiO_3) are almost transparent, gelatinous, and hence difficultly soluble;" an assertion which I described as simple nonsense. He now, whilst defending the original statement, explains that it contains two errors, H_2SiO_3 being a misprint for H_2SiO_4 and *soluble* for *visible*. But either way, the author says, the statement is equally true. To this the reply is, if he means that a precipitate is "difficultly visible" because it is gelatinous, that the second statement is as nonsensical as the first. The circumstance of a precipitate being gelatinous

*In the last proof, which I have only seen since these remarks were written, the author has removed the words "for Valentin", having discovered or been told that deflagration is a word not unknown to Landauer. This is further evidence that his education is progressing.

makes it neither difficultly visible nor difficultly soluble. Precipitates, also, he again asserts, do float. Perhaps that is the reason why they are called precipitates. It is, however, to be noted that all precipitates do not float, as the author once thought, but many do. The qualification which his original statement has undergone may be taken as evidence that the author possesses an "open mind" and, in time, may be brought to see that a precipitate is not something which floats but something which sinks.

As regards the smell of ammonia and acetic acid, he is still as obstinate as ever. The former, he maintains, has a fragrant odor; whilst the latter, which he now wants to call vinegar, though he ought to know that the two things differ considerably, especially in their smell, is "certainly sweet." It would be difficult to find any words more inappropriate than those which the author applies to these bodies. Pungency is the characteristic of both, but the smell of ammonia is, in addition, strongly alkaline, whilst that of acetic acid is powerfully acid. The author's olfactory sense is clearly as much in need of cultivation as his other faculties.

To the statement that "the sulphides of nickel and cobalt are, in different places, said to be easily soluble, difficultly soluble, and almost insoluble in hydrochloric acid" exception is taken, the author expressing a desire to know where he says that these compounds are soluble in dilute hydrogen chloride. This is an instance of what the author would call "foisting on me statements I never made." Nevertheless, I shall endeavour to oblige him. Let him turn to p. 10 of his book, and he will find it stated that nickel and cobalt belong to the group of metals whose sulphides are decomposed by dilute acids. Let him now turn to p. 18, and he will find this statement repeated. Again, on p. 120, he dissolves nickel sulphide in hydrochloric acid, the context indicating that the acid is dilute, whereas on p. 117 it is stated that both sulphides are insoluble in the same solvent. It is in Chapter VIII. they are referred to as very sparingly soluble, difficultly soluble, and almost insoluble in hydrochloric acid, but only in one instance is the degree of concentration of the acid mentioned, although this constitutes a very important factor.

Although I have noticed only a few of the points which the author contests, these remarks have run to a greater length than I intended. But I would add one more word. The author plumes himself greatly upon having obtained a review of his book in *Nature*, and seems to consider the very qualified praise which that journal has accorded it a proof of the injustice of my criticisms, as well as sufficient consolation for their severity. Far be it from me to grudge him all the consolation he can derive from this source. Rather do I envy him the happy disposition which enables him to derive any. When I read the extremely patronizing and somewhat contemptuous notice which was given to the book, the fact that the reviewer had discovered but three uncorrected typographical errors, while, in merely glancing through it, I had come across a whole host of them, attracted my attention and led me to suspect that his examination had been of a very superficial character. This opinion was confirmed when, on further inspection, I discovered prominent blunders like those of which I have pointed out a few only, and which any reviewer who had thought it worth his while to examine the book at all narrowly must have detected. This tempted me to subject the book to a thorough scrutiny, and led me to the conclusion that even the faint commendation bestowed on it by *Nature* was very much more than it merited.

THE REVIEWER

OUR PRIZE COMPETITIONS.

English Paraphrase.

Fourteen paraphrases, in all, of *Crossing the Bar* have been received. Four of these were disqualified for breach of the conditions, such as bad spelling; late arrival, wrong address, &c. A few, not counted above, were refused because they were under-stamped. Of the ten qualified for the competition, the result is as follows:—

Prize.

Mr. E. M. de Monte, C.E., 10, Weston's Lane, Calcutta. (*Prose.*)

Proxime accessit.

Mr. Joseph Saldanha, Junior B. A. Class, St. Aloysius' College, Mangalore. (*Poetry.*)

I Class.

Apollo (*Prose.*)

Joss (*Poetry.*)

II Class.

Ralph Iron (*Prose.*)

It will be remembered that Mr. de Monte also won our first prize for English Paraphrase. He now wins the second, although he has failed to catch the meaning of the second part of the third stanza. As soon as we can find room we hope to publish his paraphrase, as well as that of Mr. Saldanha.

MATHEMATICS.

(Conducted by Rai Bahadur P. Ranganada Mudaliyar, M.A.)

[All communications for this section should have the word *Mathematics* on the cover, and should reach the Editor before the 20th of each month, or they will not be attended to in the succeeding issue.]

PROBLEMS

1. Given the radii of three circles inscribed in a triangle, so that each circle touches the other two and two sides of the triangle, find the sides of the triangle.

2. The interval between two successive transits of the same star across the prime vertical was observed to be 4 hrs, the declination of the star being $\tan^{-1}(\frac{1}{2})$. Find the latitude of the place of observation.

3. An equilateral triangle is drawn circumscribing a given parabola $y^2 = 4ax$; prove that the envelop of its circum-circle is the hyperbola $3(x+a)^2 - y^2 = 12a^2$.

4. If two lengths are measured on two fixed lines, the tetrahedron of which these two lengths are the opposite edges is of constant volume in whatever parts of the lines the lengths are measured.

5. Two concave spherical mirrors of equal radius r are situated on the same axis, and have the same centre. A pencil of rays proceeding from the principal focus of one mirror is directly incident on the other, and is reflected backwards and forwards. Shew that the n th Geometrical focus is distant $r/2(n+1)$ from the centre.

6. Find the radius of curvature at the point $(a, 0)$ in the curve $xy^2 = a^2(a-x)$ and shew that there is a point of inflexion where $x = \frac{3a}{4}$.

7. If, in a triangle, $R = 2r$, it must be equilateral.

8. Solve completely

$$(x^2 - 3qx + p^2 - 3pq)^2 - 4(px + q)^2 = 0$$

9. Prove that the area of the ellipse given by the general equation $(a, b, c, f, g, h, k) (x, y, 1)^2 = 0$ is $\pi \Delta / C^{\frac{1}{2}}$, where Δ is the discriminant of the equation, and $C = \frac{d\Delta}{dc}$.

10. Draw a circle to trisect the circumference of a given circle and cut it at right angles.

11. Find a point E within the triangle ABC such that $AE + BE + CE$ may be a minimum.

12. A triangle PQR right-angled at Q is inscribed in the conic $4x^2 - 9y^2 = 36$. Shew that the envelope of PR is the conic $25(4x^2 - 9y^2) = 6081$.

13. Shew that the axis of the parabola $\sqrt{ax} + \sqrt{by} = 1$ is represented by the equation $ax - by = \frac{a^2 - b^2}{a^2 + b^2}$.

14. Sum up the two following series continued to infinity:—

$$(1) \frac{3}{8} + \frac{7}{3^3} + \frac{11}{3^5} + \frac{15}{3^7} + \dots$$

$$(2) \frac{1}{3 \cdot 3} + \frac{1}{7 \cdot 3^3} + \frac{1}{11 \cdot 3^5} + \frac{1}{15 \cdot 3^7} + \dots$$

15. Explain why a beam of light cannot pass through a glass prism whose refracting angle is 85° , but can pass through a water prism of that angle.

16. If $\left(\frac{1-px}{1-qx}\right)^n = a_0 + a_1x + a_2x^2 + \dots$ find the relation between a_{r-1}, a_r, a_{r+1} .

17. If p_r be the coefficient of x^r in the expansion of $(1+x)^n$, shew that

$$p_1 - \frac{1}{2}p_2 + \frac{1}{3}p_3 - \frac{1}{4}p_4 + \dots (-1)^{n-1} \frac{1}{n} p_n = 1 + \frac{1}{2} + \frac{1}{3} + \dots \frac{1}{n}$$

UNIVERSITY OF MADRAS.

SUBJECTS FOR EXAMINATION.

MATRICULATION EXAMINATION—1894.

BRANCH II.—SECOND LANGUAGE.

Sanskrit.	Marathi.
Selections to be published by the University.	Will be notified later
Greek.	Burmese.
Xenophon. Selections from the Anabasis, bk. IV, edited by E. D. Store, M.A. Macmillan and Co.	Prosô.
Euripides. Ion (omitting the choros).	Poetry.
Latin.	Lanka-thara Son-ma-sâ.
Cæsar. DeBello Gallico, bk. I.	An-tha-tha-sin-ma-sâ.
Easy selections from Ovid in Elegiac verse, by Herbert Wilkinson, M.A. Macmillan and Co., 1891.	The spelling required of the candidates who present themselves for examination in Burmese should be in accordance with—
Arabic.	(a) The Thatpôa published by the Text-book Committee;
Nâsir-ut-Tullâb. Second half.	(b) Judson's Dictionary; and
Ikhvân-us-Safa. Second half.	(c) The revision made by the Text-book Committee of the accounts of disputed spelling in Judson's Dictionary.
Persian.	French.
Muntakhabât-e-Farsi, No. 3. (S.P.C.K. Depôt.)	French Reading from Roman History—
Bostân. Chapter 2.	I. The Genius of Rome.
Hindustani.	II. Legends.
Muntakhabât-e-Urdû, No. 5. (S.P.C.K. Depôt.)	III. The Tribunal and the Decemvirs.
Gulshan-e-Urdû. Second Chaman to the end of Radîf Gâf.	IV. The Gauls.
(Matba' e-Iftikhâr, Delhi.)	(Selections edited with notes by C. Colbeck, M. A. Macmillan and Co., 1886).
Tamil, Telugu, Kanarese, and Malayalam.	Florian. Select Fables (edited by Rev. Charles Geld. M. A. Macmillan and Co.)
Selections to be published by the University.	German.
Urdu.	Theodor Körner. Zriny.
M. S. Râo—Prabandhamâlâ, pages 1-115.	Selections from the Poems of Schiller and Goethe (Clarendon Press Series).
Ram Narayan Ray—Kabitâsagraha.	

BRANCH IV.—PHYSICS AND CHEMISTRY.

- (a) Elements of Physics. Balfour Stewart's Physics (Science Primer Series).
 (b) Elements of Chemistry. Rozcoe's Chemistry (Science Primer Series).

FIRST IN ARTS EXAMINATION.—1895.

BRANCHES I AND II.—LANGUAGES.

English.	Sanskrit.
Shakspeare. Julius Cæsar.	Raghuvamsha. Chaps. 12, 13, 14, 15, 16, 17.
Byron. The Siege of Corinth.	Kamandakianitisâra. Chaps. 1-7.
Readings from English History, selected and arranged by T. R. Green, Part II. From Cressy to Cromwell.	Greek.
	Sophocles. Oedipus Coloneus.
	Herodotus. Book I, chaps. I-CXXI.

Latin.	Kanarese.
Cicero. Pro Lege Manilia.	Karnataka Kâdambari. The first 250 stanzas.
Livy. Book II, chaps. I-XI.	Jâimini Bhârata. Sandhi XXIX.
Horace. Epistles, Book I, Epistles I-XVI.	Mricchakatika prakarana. The first four ankas.
Vergil. Georgics, Book IV.	Malayalam.
Arabic.	Adhyâtmarâmâyanam. Ayôdhvâkândam.
Alf Laila. Nights 1 to 30 inclusive.	Uttarârâmacharitam, by C. S. Chattu
Nafhat-ul-Yaman, Chap. 2.	Kutti Mannadi Nayar. The first four ankas.
Persian.	Rukminîsvayamvaram. Kathakali.
Qasâ'id-e-Urfi. Pages 1-31.	Urdu.
Panj Abang. Abangs 1, 2, 3 and 5 to page 199.	Sakuntala Upâkhyân (by Bunomaley Sing).
Hindustani.	Râmâyana Ayôdhyakânda, by Phakira-mohana Senapati, 1-60 chapters.
Kulliyât-e-Atish, to the end of Radîf Alif. (Noul Kishore Press, Cawnpore.)	Marathi.
Ha'yât e-Sâ'di. (Fazl-ud-din, Bookseller, Lahore).	Harivamsa, 19-27 chapters.
Tamil.	Kusalavôpâkhyâna (by Môrôpant).
Villiputtûrâr's Bhârata. Aruchchunan tavannalicheharakkam, omitting stanzas 51-67.	Vâmana's Sudâmacharita and Nrihari-dargana.
Nâdiyâr. Chaps. XI to XV.	French.
Manonmauvam, by P. Sundaram Pillai, M.A. About 53 pages of the play to be selected and reprinted by the author.	La Mare au diable. By George Sand. Edited, with omission of the preface by W. E. Russell, M.A. Macmillan and Co., 1891.
Naduvénirkavavu, by S. Narayanaswami Aiyar, B.A.	Bossuet. Oraison funèbre de Michel Letellier.
Telugu.	Boileau. Epistles I-VI.
Virataparvamu. Canro V.	Molière. Les Femmes Savantes (edited by G. Eugène Fasnacht). Macmillan and Co., 1886.
Rasikajananumanoranjanamu, by Viresalingam Pantulu. Canro I.	German.
Venisambhramu, by Vaddali Subbarayudu Gura.	Goethe. Iphigénie auf Tauris.
Narapativijayamu. Edited by Dr. G. Oppert, pages 1 to 39.	Schiller. Egmont's "Leben und Tod" and "Belagerung von Antwerpen" (Clarendon Press Series).

BRANCH V.—HISTORY.

(a) and (b) Schmitz's Ancient History.

B. A. DEGREE EXAMINATION 1896.

English.	Greek.
Chaucer. The Clerk's Tale, Parts III, IV, and V.	Thucydides. Book I.
Shakspeare. Coriolanus.	Plato. Apologia Socratis.
Radshaw's Anthology, Book III, Section 3. A.D. 1746 to A.D. 1757.	Homer. Iliad. Books VI and VII.
Bacon. Essays, I, IV, VIII, XI, XVII, XVIII, XXIII, XXVII, XXX, XXXIII, XXXIV, L.	Latin.
De Quincey. The Glory of Motion, The Vision of Sudd n Leath.	Cicero. Tusculan Disputations. Book I.
Carlyle. The Hero as Poet, in Heroes and Hero-Worship.	Tacitus. Germania.
Hunter. Dalhousie, in the Rulers of India Series.	Lucretius. Book I.
Sanskrit.	Juvenal. Satires VII and XV.
Kirâtârjunîya, 1-5.	Arabic.
Mâlâtîmâdhava.	Majma' e Adab, Part IV (Mission Press, Beyrout).
	Ilm ul-Adab, Parts I, II (Mission Press, Beyrout).
	Tamrin-ut-Tullâb, Parts I, II, III (Mission Press, Beyrout)

Persian.
Tuhfat-ul-irraqin. Maqalās 1 to 4 inclusive. Se Nasr-e-Zuhāri.

Hindustani.
Fasāna-e-Ajā'ib.
Divān-e-Zauq, to the end of Radif Khāi.

Tamil.
Kambarāmayanam. Bālakādam. Padalams 3 to 7 both inclusive (M. S. B. and V. L. Society's edition).
Kural. Adhikāram 11 to 20 with the commentary of Parimēlāzhagar.
Silappadhikāram. Nādnkānkādai.
Tiruvilaiyādal Purānam. Padalams 41 and 42.
Tiruvēngadakkalambagam.

Telugu.
Uttarāmayānamu, by Kankanti Paparaju, canto III, omitting the conversation between Rāvana and Vēdavatī.
Harischandraśālōpākhyānamu. The first half of canto II.
Kāvyaśāntakāchūdāmani, by V. Peddanna, canto VI.
Pāndurāgamābhātmyānamu, canto V.

Kanarese.
Pamparāmayāna. Asvāsa XI.
Mitravindāgovinda. First 80 pages.
Rājasēkharavilāsa. Asvāsa XIV.
Kabbigārakāvam. First 200 stanzas.

Malayalam.

Uttarāmayānamu. Kathakali.
Bhāratam. Sāntiparvam.
Krimniravadhānam. Kathakali.
Bhāgaratam. Septamaskandham.

Urdu.

Kumārāmbhava.
Rāmāyana. Sundarākānda. (Calcutta School Book Society.)
History of England, by Gangādhar Tripathi.

Marathi.

Muktēvara's Rāmāyana.
Vāmana's Harivilāsa.

French.

Bossuet. Histoire Universelle. Part III. Les Empires.
Jules Verne. Le Courrier du Czar. Part II.
Racine. Iphigénie.
Dolille. Géorgiques. Books III and V.

German.

Schiller. Wallenstein's Tod.
Goethe. Faust. Part I.
Lessing. Laokoon, oder über die Grenzen der Malerei und Poesie.
Hauff. Lichtenstein.

SCIENCE DIVISION.

Branch II.

- (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) Ganōt's *Elementary Treatise on Physics*. Deschanel'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 Bower and Vine.
ii. (B) Foster and Langley's *Practical Physiology*. *Hand-book of Physiological Laboratory*. Ferrier's *Functions of the Brain*. Foster's *Text-book of Physiology*. Bell's *Comparative Anatomy and Physiology*. Klein's *Elements of Histology* or Schaffer's *Essentials of Histology*. Power's *Human Physiology*.
ii. (C) Claus's *Text book of Zoology*, English translation. Gegenbaur's *Elements of Comparative Anatomy*. Marshall and Harst, *The Frog*, 3rd edition. Marshall and Harst, *Practical Zoology*, 2nd edition. Wiedersheim's *Comparative Anatomy of Vertebrates*. Huxley's *Anatomy of Vertebrata*. Certain of the Zoological articles in the *Encyclopædia Britannica*, 9th edition, may also be read with advantage.

ii. (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*.—A general knowledge of the method and doctrine of Aristotle, with particular reference to his theory of the origin of ideas.
iv. *History of Ethics*.—Aristotle's *Nicomachean Ethics*. Books VI to X inclusive.

Branch V.

ii. (a) Maine's *Ancient Law*. Students will find it of advantage to consult *Early History of Institutions and Village Communities* by the same author, and *History of the Science of Politics* by Sir Frederick Pollock.

(b) P. V. Smith's *History of English Institutions*. Stubbs's *Select Charters*, Part I. Students will find it of advantage to consult Gneist's *History of the English Constitution*.

iii. The *Student's Gibbon*; Bryce's *Holy Roman Empire*.

iv. India in the time of Clive and Warren Hastings.

vi. Fawcett's *Manual of Political Economy*, book I, chapters 1 to 8; book II, chapters 1 to 7 and chapter 12; book III, chapters 1 to 13; book IV, chapters 1 to 7. Students will find it of advantage to consult Marshall's *Economics of Industry* and J. E. Syme's *Political Economy*.

M. A. DEGREE EXAMINATION—1896.

BRANCH I.

(b) viii. Lloyd's *Lectures on the Wave Theory*.

BRANCH II.

(A) 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 of the Madras University, Astronomy being excluded; in Chemistry, that of Optional Chemistry for the B. A. degree examination of the Madras University, Organic Chemistry being excluded.

(B) The standard in Chemistry to be that of the Honours examination for the B.Sc. degree of the London University; in Physics that of Optional Physics for the B.A. degree examination of the Madras University.

BRANCH III.

The standard in Botany, Physiology, Zoology, and Geology to be that of the Honours examination for the B.Sc. degree of the London University.

BRANCH IV.

i. The following additers to the B.A. course:

1. *Psychology and General Philosophy*. The origin of our ideas of Space, Time, and Cause.
2. *Logic*. The logic of the moral sciences.
3. *Ethics*. The origin of the sense of Responsibility. The Genesis of disinterested benevolence.

ii. *History of Philosophy*:

1. *Psychology and General Philosophy*. The French Materialists of the Eighteenth Century.
2. *Logic*. Indian Logic.
3. *Ethics*. Evolutional Ethics as developed by Darwin, Spencer, and Leslie Stephen.

iii. *Authors*:

1. *Psychology and General Philosophy*. Gough's *Philosophy of the Upanishads*.
2. *Logic*. Venn's *Principles of Empirical or Inductive Logic*.
Ethics. Alexander's *Moral Order and Progress*.

BRANCH V.

- i. Ancient History. Rome from B.C. 146 to the death of Augustus.
- ii. Medieval History. The Moors in Spain.
- iii. Modern History. Reign of Louis XIV.
- iv. History of India. The Mughal Dynasty, 1526-1761, with special reference to the authorities for the History of Akbar's reign.
- v. The Village Community and the Manor.
- 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. Begehot's Lombard Street. L. Cossa's Guide to Political Economy. J. E. Cairnes's Leading Principles. Marshall's Principles of Economics.

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. Extracts given in Sweet's Anglo-Saxon Reader (1888) and in "Specimens of Early English," Part I (Morrie).
- Layamon's Brut. Extract in "Specimens of Early English," Part I, edited by Dr. R. Morris, 1887.
- Chaucer. Prologue to the Canterbury Tales, Clerkes Tale, the Book of the Duchesse.
- Spencer. The Tears of the Muses, Astrophel, Epithalamion.
- Shakspeare. "All's Well that Ends Well," Lear, Richard III.
- Massinger. The Fatal Dowry.
- Milton. Samson Agonistes, Sonnets.
- Dryden. Mac Flecknoe.
- Burns. Tam O'Shanter, Cottar's Saturday Night. Songs: Banks of Doon, Bannockburn, A Rosebud by my Early Walk, Of a' the Airts the Winds can Blaw.
- Byron. Manfred.
- Browning. Dramatis Personæ: Rabbi Ben Ezra, a Death in the Desert, Mr. Sludge "The Medium."
- Tennyson. The Princess.
- Bacon. The Essays.
- Dryden. On Dramatic Poesy.
- Addison. Essays on Paradise Lost.
- Johnson. The Lives of Dryden and Pope.
- Burke. Reflections on the French Revolution.
- Lander. Selections by Sidney Colvin (Golden Treasury Series).
- Hallam. History of Literature, Part IV, Chapters III-VII.
- Ruskin. Crown of Wild Olives.

Sanskrit.

- Rigveda, I Mandala. Suktas 73-108.
- Grihyasutra. Apastamba.
- Sarvakasutra. Adhyayas 1 and 2 with Shrikara's commentary.
- Yajnavalkyasmriti.
- Sukra-nit-sara. Chapter IV.
- Harahacrita.
- Mricchakatika.
- Mudraraksasha.
- Ratnavali.
- Sankhyakari, with commentary.
- Kavyalankarasutavritti of Vamana.

Greek.

- Hesiod. The Works and Days.
- Homer. Odyssey, Books I, II and III.
- Sophocles. (Edip. Colcu. Philoctetes.
- Trachiniai.
- Aristophanes. Acharnians. Birds.
- Thucydides. Books I, II and III.
- Plato. Protagoras. Timæus.
- Æschines. De falsa Legatione. In Timarchum.
- Plato. Politics, Books I, II and III.

Latin.

- Vergil. The Eclogues.
- Horace. The Odes, Books I, II, III and IV.
- Persius. The whole.
- Terentius. Phormio.
- Plautus. Cuptivi.
- Lucretius. Book II.
- Tacitus. Hist., Book II.
- Quintilian. De Institutione Oratoria, Books I, II and III.
- Cicero. De Natura Deorum. De Amicitia. De Senectute.
- Livy. Books XXXI-XL.

DRAVIDIAN LANGUAGES.

Tamil as First Language.

- Chintamani, Nāmagalilambakam.
- Silappadhikāram, Pūgarikādam.
- Periyatirumozhi, stanzas 1 to 300.
- Tēvāram, 49 Padigam in Tēlavarisai, from Koil to Vē uparam.
- Prabblingalilāi, from the beginning to the end of Prabhudēvar vāsa gati.
- Thāyumanavar Pādal, from the beginning to the end of Sukhavāri.
- Tiruvarangakkalambakam.
- Kambaramiyanam, Aranyakādam.
- Nannūl, the whole, with Viruttiyurai for Ezhutthadikaram.
- Tōgāppiyam, Solladhikāram, with the urai of Senāvaraiyar.
- Kārigai, the whole, excluding Ozhibiyal.

Tamil as Second Language.

- Rāmāyanam, Aranyakādam, stanzas 1 to 400.
- Nannūl, Peyariyal, Vinaiyiyal, and Pōduvial, with Kādigaiyural.
- Kural, first twenty adhikāram, with Parimēlāzhaḡararai.
- Bhāratam of Villiputtūrar, Vīrataparvam the whole.

Telugu as First Language.

- Appakāiviyamu (Prosody and Rhetoric).
- Narasabhapāliyam.
- Nannayabhattiyamu.
- Andrabhāshābhāshanamu.
- Vishnuchittiyamu, āsvāsas 1 to 3.
- Vasucharitram, āsvāsas 4 and 5.
- Bhāratamu, Vīrataparvam.
- Rāmābhyudāyanu, āsvāsa 1.
- Kavijananjanamu.
- Bhāgavatamu, skandhas 1 and 2.
- Harivamsamu, āsvāsas 1 to 4.

Telugu as Second Language.

- Narasabhapāliyam.
- Nannayabhattiyamu.
- Vishnuchittiyamu.
- Vasucharitram.
- āRāmābhyudāyanu

Kanarese as First Language.

- Saddamanidarp, ās, with the commentary of Nishthurasanjaya (Kittel's edition).
- Pamparāmāyana, Bālakānda, five chapters.
- Kāvyaśālokana Alankāraprakarana (My-sore edition).
- Jagannāthavijaya, āsvāsas 1 to 3.
- Rajasēkharavilāsa, āsvāsas 1 to 4.
- Nāgavarmana Chandasa.
- Vrishabendra vijaya, āsvāsas 1, to 3.
- Kalāvati-parinaya.

Kanarese as Second Language.

- Saddamanidarpana.
- Sahasraṅkaravilāsa.
- Pamparāmāyana, āsvāsas 1 to 5.
- Jagannāthavijaya, āsvāsas 1 to 3.
- Kāvyaśālokana.

Malayalam as First Language.

- Vālmikīrāmāyanam. Bālakādam.
- Bhāratam, Sambhāvaparvam and Ud-yōgaparvam.
- Adhyātmarāmāyanam, cantos 1 to 3.
- Bhāshānaishadhachampū.
- Krishnagātha, by Cheru ēri Namburi, Eituvannam.
- Kattā'alis, by Kottayattu Kerala Varam Tambiran, Krimmīravadham and Nivā-takāvachavadhām.
- Nalācharitam, by Unnayi Variyar.
- Uttarāswyamvaram, Kathakali.
- Va rāgyachandrodāyam.
- Bhāgavatam, skandas 1 to 3.

Malayalam as Second Language.

- Bhāratam, Sambhāvaparvam and Sabhāparvam.
- Adhyātmarāmāyanam. Ayōdhyākādam.
- Bhāshānaishadhachampū, first half.
- Vēṭālacharitam.
- Kathakalis, by Kottayattu Kerala Varma Tambiran, Bakavadham and Kalyānasangandhikam.
- Nalācharitam, by Unnayi Variyar, first two days' plays.
- Prabhādacharitam.

I. T. DEGREE EXAMINATION—1895.

II. History of Education.

Primary Education in England since 1839

B. L. DEGREE EXAMINATION—1896.

- Equity Jurisprudence. Snell's Principles of Equity. Story's Equity Jurisprudence.
- Hindu Law. Mayne on Hindu Law and Usage.
- Muhammadan Law. MacNaughten's Principles and Precedents of Muhammadan 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. II, part I, (excepting chaps. XIX, XXI, XXII, and XXIV), bk. II, part II, (excepting chap. VI).
Contracts. Pollock's *Principles of Contracts*.
Torts. Collett's *The Law of Torts and the Measure of Damages*.
Evidence. Best's *Principles of the Law of Evidence*. Stephen's *Introduction to the Indian Evidence Act*.

M. L. DEGREE EXAMINATION—1896.

The text-books recommended to candidates for the M.L. degree, in addition to those recommended in the corresponding subject 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. Mac-lachlan'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*. Lowin 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*. Rigelow'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) Case. Cadell v. Palmer. Bradley v. Piexoto. Chan's Cases. Pice Hiscocks v. Hiscocks Forbes v. Moffat. Moyley v. Bird. Richardson v. Langdridge 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.—Standar'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 by the Privy Council. Maine's *Ancient Law*.

L.S.Sc. DEGREE EXAMINATION—1896.

Chemistry. Roscoe's *Lessons on Elementary Chemistry*. Wanklyn's *Water Analysis*. Hasall on *Food and its Adulterations*.
Physics. Balfour Stewart's *Lessons on Elementary Physics*. Scott's *Elementary Meteorology*. Buchan's *Hand-book of Meteorology*. Gaudet'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 *Cyclopædia of Anatomy and Physiology*. Reports of Famine Commission. Madras Census Reports of 1871 to 1891.
Sanitary Engineering and Sanitation. Latham's *Sanitary Engineering*. Haskoll's *Water Works*. Seivers, *Sewerage and Irrigation*. Krepp's *Sewerage Questions*. Carfield's *Dwelling Houses*. Galton's *Construction of Hospitals*. Jones' *Manual for District and Municipal Boards*.
General Hygiene. Parkes', King's, and Wilson's *Manuals*. Moore's *Public Health Manual for Ireland*. Noel Hartley's *Manual of Health*.
General Pathology. Hooper's *Vade-Mecum*. Aitkin's *Practice of Medicine*. Klein's *Micro-organisms and Disease*.

(By Order.)

GEO. BICKLE,
Registrar

Senate House, 25th May 1893.

INDIAN NOTES.

The departure on furlough of Dr. D. Duncan, Director of Public Instruction, Madras, has been deferred till towards the end of September.

The Standing Committee has decided to reduce Caldwell College, Taticorin, to the status of a High School.

The Hon. Mr. C. Sankara Nayar, B.A., B.L., Madras, has sent his brother to England to study for the Indian Civil Service.

The next Madras Government Technical Examinations will be held in Madras and at the various local centres on the 20th November and the following days.

On the motion of the Madras Director of Public Instruction, the Madura Municipal Council has resolved to open a salary results school for Paraiyas in Madura.

A school for the Todas has been opened on the Nilgiris under the auspices of the Church of England Zenana Missionary Society. Miss Ling is in charge of the school.

A meeting of the "Pachaiyappa Commemoration Committee" was held in Pachaiyappa's Hall, Madras, on Wednesday, 23rd August, to concert measures for this year's annual celebration.

The quinquennial Report on Educational Progress in India has just been completed by Mr. A. M. Nash, M.A., of the Bengal Educational Department, who has now reverted to his ordinary duties.

Out of the 28 Indian students now studying in England, 8 are Indian Christians. The N.-W. Provinces have sent three, the Panjab one, Bengal one, Madras two, and there is one other whose province is not mentioned.

The Governor-General has authorized the affiliation of the Indian Association for the Cultivation of Science to the Calcutta University, in physics and chemistry, up to the standard of the First Examination in Arts.

Theebaw, ex-King of Burma, who is living at Ratnagiri on the West Coast, about midway between Bombay and Goa, is now fairly proficient in English. His daughter, born since the annexation, is also learning English and Hindustani.

Mr. J. A. Douglas, M.A., the new Professor of History and Political Economy at Pachaiyappa's College, Madras, arrived in Madras with Mrs. Douglas by the *s.s. Clan Macintosh* on Monday, 14th August, and entered upon his duties on the following day.

A School for the teaching of Hindu medicine will shortly be established at Delhi. The late Lala Banwari Lal, Banker, Ferozepur, bequeathed in his will the sum of over Rs. 20,000 for this purpose. The document has been discovered only quite recently among his papers.

Babu Sarat Chandra Das, the well-known Bengali Pandit, who is engaged upon an exhaustive Dictionary of the Tibetan language, to be published by the Indian Government, has also written a popular narrative of his travels and experiences in Tibet, which will soon be issued by a London firm.

An Ayur Vedic College is in a fair way of being shortly established in Calcutta. The chief promoters of the scheme, Kabiraj Ganga Prashed Sen, and Bejoy Ratna Sen, have intimated to the Hon. Mr. H. H. Risley, Secretary to the Local Government, that half a lakh of Rupees has been already subscribed.

The Noble College, Masulipatam, which was originally started as a small Missionary School, in a very humble way, by the Rev. Robert Noble on November 21, 1843, has now developed into a First Grade College with branch schools, and celebrates its Golden Jubilee during the present year.

The Consulting Architect has been asked to submit plans and estimates for improving the accommodation at the Civil Engineering College, Madras, and lighting the old portion of the present buildings. The proposal for the erection of entirely new buildings in connexion with the College has been postponed for the present for financial reasons.

We acknowledge with thanks the receipt from the Office of the Director of Public Instruction, Burma, of the *Education Code, Burma*, corrected up to date. The present volume contains a valuable addition,

991

likewise brought up to date, in the shape of a Manual of Examination Rules for Government Officers, or for admission to the Government Service in Burma.

"The Mayavaram Amateur Dramatic Club" is now in its second year. It has for Patron The Hon. Sir T. Muttaswami Aiyar, C.I.E., for President Mr. A. Swami Aiyar, and for Secretary Mr. M. P. Duraiswami. The first Annual Report tells in an agreeable way the story of the origin and work of the Club, which bids fair to do good service in the cultivation of dramatic taste and talent.

The school for European and Eurasian children started by the Sisters of the Church last January under the title of the Madras Collegiate School has now 100 pupils. The sisters propose shortly to open a Boarding School in Madras for superior native girls, and also for native female day pupils. This school will be separate from the present one, and arrangements for the new premises are in progress.

There are in Burma four Normal Schools aided by Government. Two of these are for Burma and Karen girls, one for Karen boys, and one for European girls. The Kindergarten departments are likewise in a high state of efficiency. Seven of them are already in existence, and more are likely to follow. Five of the seven are attached to Normal Schools, and teachers are required to study the system.

We (*Mysore Herald*) understand that from the commencement of next year the local Wesleyan High School will become a Second Grade College, and will be placed in charge of a well-known graduate Missionary from London, who has been selected to succeed the Rev. Mr. Holdsworth. We fancy that by that time the Government College will be raised to a First Grade one, as otherwise neither would show any appreciable degree of success.

At a meeting of the past and present pupils, friends, and admirers of Dr. R. G. Bhandarkar, M.D., C.I.E., late Professor of Oriental Languages in the Deccan College, held under the presidency of Professor F. G. Selhy, Principal of the Deccan College, it was resolved to place a life-size painting of the learned and accomplished Doctor in the Library Hall of the Deccan College in recognition of the valuable services rendered by him to the cause of Sanskrit literature.

The Education Sub-Committee of the Eurasian and Anglo-Indian Association has arranged to give three prizes to the three first girls who pass the Matriculation Examination of December 1893, from the schools in the Madras Presidency. The prizes will most likely take the form of one gold and two silver medals. The Committee has also decided to grant five prizes of Rs. 10 each to the E. and A.-I. students passing the Madras Government Technical Tests—one prize for each test.

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We learn from *The Chaitanya Library Journal* that the following Prize Medals, offered by the Chaitanya Library and Beadon Square Literary Club, are to be awarded during the current year:—(1) *In Memoriam Khelat Chandra Ghosh Gold Medal*—Subject: "The Poverty of India—its Causes and Remedies"—the Essays to be written in English. (2) *Bisumthur Sen Silver Medal*—Subject: "The Present Condition of Hindu Society"—the Essays to be written in Bengali. (3) *Vidyasagar Silver Medal*—Subject: "What Bengali Literature owes to Vidyasagar"—the Essays to be written in Bengali. All Essays should be sent to "The Secretary, Chaitanya Library and Beadon Square Literary Club, 83, Beadon Street, Calcutta," on or before 30th November, 1893.

* * *

Mr. K. Ramunni Menon, B.A., the winner of this year's Gilchrist Scholarship of £200 a year for three years, tenable in England, left Madras for England on Monday, 14th August, per s.s. *Dunera*. The Rajah of Cochin has granted him an extra allowance of £100 a year during his stay in England, and the Cochin Princes have added another £50. The new Gilchrist scholar belongs to Trichur in the native state of Cochin, is by caste a Nayar, was educated first at Ernakulam and then at Presidency College, Madras, and his career hitherto has been exceptionally brilliant. It is gratifying to find that he has left Cochin with the sanction of both the High Priest and the Rajah. Thus we hope will the barriers thrown in the way of sea-voyages by high-caste Hindus gradually fall.

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We are indebted to *The Pioneer* for the following curious piece of information about natives of this country in the Indian Civil Service. The first native to enter the Service by open competition in England was Satyendra Nath Tagore, a Bengali, now a Sessions Judge in Bombay. He joined in 1864, and three other Bengalis came on the strength in 1871. In the next year a Mahratta Brahmin and an Assamese (Hindu) appeared on the scene—both of whom are dead. Then, later, came two Bengalis, a solitary Madras (Hindu), and three Parsis. This

was up to 1884. Since then eleven other natives have joined, of whom no less than seven belong to the Bengali race, excluding a Patna Muhammadan. Of the other three, two hail from Bombay and one from Madras. No native candidates were successful at the open examination in 1891, but two Bengalis passed the following year and will come out in due course. Summarizing these figures we find that out of the total of 25 no fewer than 15 are Bengalis. Not a single native of the North-West Provinces, Oudh, the Punjab, Sind or the Central Provinces has entered the Service.

* * *

Mr. J. H. Stone, M.A., in his Annual Report on the working of Kumbakonam College during the year 1892-93, points out that as an immediate result of the abolition by Government of scholarships, a society has been established under the name of the *Kumbakonam College Scholarship Society* for collecting funds for scholarships in the College. In all Rs. 525 have been collected and applied to the payment of scholarships, which in no case exceed the amount of the College fees due from the holders. As Mr. Stone adds, "The public of the district is to be congratulated on the enlightened public spirit which its leading men have shown in thus coming forward to provide for the higher education of indigent but deserving students." The Director observes that the College acquitted itself satisfactorily on the whole both at the College and at the University Examinations. This indicates that care and judgment were exercised by the Principal in regard to admissions and promotions. The tutorial system continued to work with eminent success. Physical education commanded the attention both of the teachers and the taught, and a sincere taste has been created among the students for out-door games and athletic exercises. The Director compliments Mr. Stone and his staff on the able manner in which they have discharged their duties during the year. The Report abounds with absurd press mistakes. It is a pity these points are not more carefully attended to in the Director's Office.

* * *

The Madras Director, in his review of Mr. R. A. Nelson's Report on the working of the Law College, Madras, during the year 1892-93 observes that there were 512 students on the rolls—405 in the B.L. classes and 107 in the Pleaders'hip class—on the 31st March 1893, against 360—310 in the B.L. and 50 in the Pleaders'hip classes—on the corresponding date in the previous year. This is the largest number ever recorded. Of the 405 students in the B.L. classes, as many as 201 belonged to the First (junior) class. The large size of this class is attributed by the Principal to the change in the Pleaders'hip Examination Rules to the effect that candidates for that examination from end

after 1894 shall have taken the degree of Bachelor of Arts. Many students, in consequence, think it well to enter upon the B.L. course at once instead of entering upon the easier Pleaders'hip course. The Principal is requested to report on the expedience of breaking up the class into two sections for tutorial instruction, the vacant Assistant Professorship being filled up at once. Of the students, 490 or 96 per cent. were Hindus—76 per cent. being Brahmins and 20 per cent. non-Brahman Hindus. The increase in the number of Native Christian students, from 13 to 18, was satisfactory; but there were only three Muhammadans against five in the year previous. The non-Brahman classes were poorly represented. The year closed with a surplus balance of about Rs. 15,000. The constitution of the Law College was sanctioned by the Secretary of State on the distinct understanding that the college should be entirely self-supporting, and that no demand should ever be made on Provincial funds. The Principal should, therefore, see that the expenditure does not in any circumstances exceed the receipts. The administration of the college was creditable to the Principal and his staff. The Director trusts that the changes sanctioned by Government in the system of remunerating the staff, will enable the Council to secure and retain the services of able members of the Bar. This alone will ensure the permanence and success of the institution.

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From Mr. Stuart's report on the working of Presidency College, Madras, during the year 1892-93, we gather that the total strength of the College, excluding M. A. scholars, advanced from 316 to 417, on which the Director very justly remarks that this steady increase in numbers during the past quinquennium—from 253 to 417—appears all the more noteworthy when it is borne in mind that the fees are 15 per cent. higher than the standard rates levied in the neighbouring institutions, that the College mainly depends for its supply of students on Mofussil schools, and that it has not the attractions which a boarding-house offers to up-country students. The total expenditure on the College, excluding the outlay on scholarships and buildings, amounted, as per annual returns, to Rs. 1,22,453, of which fees covered Rs. 29,114 or nearly 24 per cent. of the outlay against 20 per cent. in 1891-92. All the pupils, with 68 exceptions, paid the fees in advance. A few changes were made on the staff as members went on furlough or returned to duty. The only abiding change is that last January Mr. E. H. Elliot, B. A., was changed from "Senior Assistant Professor of English" to Junior Professor of English,—a well-merited promotion, by which he becomes a member of the College Council, although his duties are still the same. As usual in this College, separate reports by each Professor on his own

classes follow the Principal's report, and they are mostly very satisfactory. The Director is glad to see that arrangements have been made for instruction in Physiography. The College is the only institution in the Presidency which has been affiliated to the University in all the branches and sub-divisions of branches of the Science Division of the B. A. curriculum. But classes have not yet been formed in Animal Physiology and Botany. The year under review was the first for several years in which Mental and Moral Science ceased to attract the largest number of young men, Physics, Biology, and Natural Science having each drawn an equal number of students. The Chemistry section was also popular, but the History section lost its place. The marked increase in the number of students taking up the Science subjects augurs well for the future of scientific and technical education in Southern India. The year was in the main one of sustained progress and is creditable to the Principal and his colleagues.

OUR LONDON LETTER.

I fear I shall indicate a psychological condition only too familiar to the majority of the readers of the "Journal of Education", when I tell them that I have found it remarkably difficult to get into harness after a not inconsiderable spell of idleness. The difficulty is not lessened when the first part of the holiday has been spent upon a ship, floating indeed upon a waveless sea but crowded to repletion by a motley throng collected from at least twenty nationalities; and when the sequent period has been devoted to the invention of devices for circumventing the discomforts of a climate surely the most capriciously changeable in the world. And the difficulty is further and beyond measure increased by the absence of a too familiar incentive to exertion. I know—and the Editor knows it too—that I am well out of the reach of his shillelagh; and that appeals to 'conscience' are woefully enervated by three weeks' repose in the stuffy atmosphere of a mail-bag.

* * *

I have, however, had a welcome spur in the receipt of the new numbers of the Journal and a resulting desire to compliment our Editor upon the appetizing and withal substantial dishes he is placing before his Indian readers. I hope he will not consider my congratulations as so much soft sawder, intended to lure him from consideration of my own delinquencies, but as an honest expression of opinion,—an opinion, I am glad to say, fully shared by such friends of the Journal in this country as I have had an opportunity of meeting. In confirmation, I need only

quote the judgment of *The Daily Chronicle* in its literary page, which declares that the *Journal* "indicates great energy and earnestness" and "is thoroughly alive." Long life to it!

* * *

There is, I fear little or nothing of scholastic news to impart. The holiday season has fallen upon every one, but the unhappy members of Parliament; and after a carnival of boat-racing, cricket-matches, prize-giving and the like, the schoolmaster is indeed abroad, on the Alps, in Asia Minor, or picking up notions in Chicago—where a great international scholastic conference should be a-holding at the present time. As an ex-Editor of the *Journal*, the present writer received a polite request to join in the conference but as there was no hint about the recoupment of expenses, the invitation could not be accepted. It is much to be regretted that the great exhibition seems to fall very far short of the expectations aroused by the tall talk of our American cousins.

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One feature of the close of the scholastic year must not be omitted; I refer to the friendly dinners now coming into vogue. Commemorations and celebrations, gaudies and founders feasts, at the Colleges themselves, are indeed no new things, but they are overshadowed by the Don and forbidden ground to the undistinguished or ordinary B. A. Thus they are most appropriately supplemented by the dinner in London at the height of the season, when men are gathered together from all corners of the globe, and the untravelled parish priest or country dominie welcomes so good an excuse for a few days in the metropolis. I had the pleasure of being present (for the first time) at the fourth annual dinner of my own old College, and there foregathering with old friends—not seen, some of them, for twenty years and more. An ex-Ambassador was in the chair, and he was supported by judges, barristers, doctors, editors, padres, and others unclassified. Many were there from distant parts of the Empire, where they have been carrying on their country's work and maintaining the standard of modern civilization and learning, but all glad to take a run back for a time, and after labour find strength and refreshment in seeing the old country and meeting their old friends. As I felt the influence myself, I was confirmed in my belief that not the least healthful and happy innovation in India of recent years has been the inauguration of annual gatherings of the alumni of the great Colleges. Elphinstone College, the Madras Christian College, Pachaiyappa's College, and others have now fairly established their "day", and I trust the good example will be followed all over India.

* * *

I have had more to do with literary than scholastic matters since my arrival and I have been much struck with the interest that writers and above all publishers are taking in India. I do not mean a mere academic attitude towards India, as towards an interesting and somewhat unknown subject, furnishing some passable copy in the dearth of matters of greater public interest; but a realization of the fact that India is rapidly becoming a profitable market for publications suited to its needs and tastes. I may say, that the market is there already and publishers have awakened to find it filling with wares supplied by local enterprise and industry. This is especially the case with Educational manuals and text-books. There have always been plenty of these it is true, but British publishers have generally gauged Indian capacity and judgment at a low figure and thought anything they chose to recommend good enough to force upon the Indian market. It is no question of the quality of the wares but of their adaptability to the customer. A piece-goods merchant who refused to suit his patterns, qualities, make up, and prices to the demands of his clients would stand confessed a fool, and godowns crammed with bales of the most costly stuffs would not save him from the Court of Bankruptcy. It is true publishers have to thank some of our very superior Educational authorities, who for some unknown reason, for long condemned, unseen and unheard, any book written, printed, or published, in India. They are wiser now, by force of circumstances. The abomination flourished in their midst; and their refusal to recognize any only deprived them of the power they would otherwise have rightly exercised of winnowing the good from the bad. We are glad to think that now, having abandoned their absurd policy, our experienced educationists are ready to assist in the work of criticism, selection, and even production. British publishers thus find that if they are to occupy a stall in the Indian market, they must be up and stirring; and moreover they must expose on their counters wares attractive to the artistic eye and pleasing the literary taste of the Indian purchaser.

* * *

The firms that have taken a lead in this special class of works are undoubtedly Messrs. Longmans & Co., and Messrs. Macmillan & Co. By one of these curiosities of trade which can so rarely be satisfactorily explained, the hold of the latter firm seems to have tightened on the West and North of India, while the former have gripped the East and South. Messrs. Longmans have indeed paid special attention to the demands of the Madras Codes and curricula. The latest addition to their Indian series is the admirable little treatise on Physics by Mr. Cook, of Bangalore, which will have reached the *Journal* editor by

this time. The firm contemplate a companion manual of Chemistry. Should this be published there can be no longer any excuse for delaying to put upon a satisfactory basis the teaching of Physics and Chemistry in our High Schools and for the Matriculation Examination of the Universities. This many of my readers will remember as an old-standing and sore question in Madras. The present text-books, admirable as they are in their way and written by recognized authorities, have long been considered not quite suitable for Indian students and above all for Indian teachers. The latter is an important item. We are indeed told by the *haut école* of pedagogy that a good teacher should be independent of text-books; and we do not deny it. But the good teacher of this kind is born, not made; there are not many of them see the light in any country, and the few that India gives birth to are generally endowed with cognate qualities of far greater pecuniary value than the ill-paid and poorly appreciated capacity for teaching the young idea how to shoot. This matter was discussed long and carefully at the time when the last changes were made in the Matriculation Examination of the Madras University; and the Committee recommended the contrivance of the books now in use, not because they were ideally suitable but because no other could be found that even approached what was desiderated.

Those who have read Mr. Dutt's little Epoch of Ancient Indian History will be glad to hear that it has been adopted as the text-book in the subject at Cambridge University. They will also be pleased to hear that Mr. Dutt, who is now enjoying a well-earned holiday in England, is bringing out a revised edition of his larger work, "*History of Civilization in Ancient India*." This will appear in a new and handsome form as two volumes of Trübner's Oriental Series. I have had the pleasure of perusing the proof-sheets and can assure scholars that they will find the new edition embodies the results of the most recent discovery and criticism, and is thoroughly up to date.

Another valuable contribution to Indian research will also soon appear in a collected form; I refer to Dr. G. Oppert's History of *Bharata-Varsha*. His views and theses are well-known already in India, but their appearance in a connected and final form will doubtless cause much criticism and controversy. The book will be published by Messrs. Constable & Co. All those who have admired the industrious learning exhibited by Mr. Constable in his books and the loving care, I might almost say reverence, displayed in their production, will regret to hear that his arduous labours have told upon his health and that he has been

for some time completely laid aside from the conduct of his business. His work is however being carried on in a congenial spirit by his nephew Mr. Doubleday, and there will be no delay, much less cessation, in the publications of the house.

* * *

In addition to his more legitimate work, Mr. Doubleday is editing and publishing a very dainty edition of Shakespeare. It is intended to be a handy volume edition, with such type, paper, and format, as to make reading a pleasure. It is astonishing to find what an enormous demand there always is for editions of Shakespeare. Messrs. Macmillan have just announced a magnificent *édition de luxe* in forty volumes; and on the bookstalls and shelves in the bookshops no playwright or poet can compete with Shakespeare. A paragraph recently went the round of the papers announcing with great parade the number of copies of Ibsen's works that had been disposed of. Rubbish, especially if mixed with a good deal of filth, always finds a certain sale; but we should be much astonished if the sales of Shakespeare in a year did not far overtop all the sales of Ibsen since he first began to write.

LITERARY NOTES.

The number of the *Punjab Magazine* just to hand reprints verbatim without acknowledgment an original article that appeared in our June issue on Public Instruction in Mysore, 1891-92. We look upon this as a strange breach of journalistic courtesy.

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The *Telugu Journal of Education* for August deals, among other things, with "The Duties of School-Boys," and "The Queen-Empress of India," and notices "The Boy Mathematician" that displayed his marvellous powers not long ago in Madras.

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The new "Elementary Free Hand Drawing Book" containing a graduated series of more than 150 figures with full instructions by Sheikh Dawood, Artist and Drawing Master, Teachers' College, Madras, will be of great help to individual beginners and in the more elementary drawing classes where the book may be used. It costs only one Rupee and is well worth the money.

* * *

Considering the "fact that there is hardly any public organ in the whole of the Telugu country, comprising about half of the Madras Presidency," we trust that "The Bharata," a new weekly newspaper published in English at Rajamundry by the Head Master of the Rajamundry

High School, will supply the deficiency and meet all the requirements of all the more distant northern portions of the Madras Presidency. The newspaper is well got up, well written, moderate in tone, contains judicious selections, and deserves to succeed. The title should delight the heart of Dr. Oppert, whose learned work "On the Original Inhabitants of *Bharatavarsha* or India" is now in the press.

We have received from Messrs. Macmillan & Co. a new set of their *Orient Readers* by Mr. Eric Robertson, M.A., Fellow of the Panjab University and late Vice-Principal, Government College, Lahore. We reviewed these excellent Readers last year in our May number. We should now add that the only drawback we were then able to point out has since been remedied, as the present Readers have the advantage of being bound. Not only that, but the prices of some of the more advanced Readers have been considerably reduced since their original publication. The present prices will be found in one of our advertisements. We need now only add that, as a complete set, the *Orient Readers* stand unrivalled in their suitability to Indian schools in the three essentials of matter, manner, and price; and we can strongly recommend their introduction wherever they may be still unknown.

We have received the first two numbers of *The Chaitanya Library Journal*, a new Calcutta quarterly, edited by the Rev. Alex. Tomory, M.A. We learn from the opening number that the new Journal is the organ of the Chaitanya Library and Beadon Square Literary Club, that its inception is due to the publication of lectures delivered from time to time under the auspices of the Club, and that it is intended to devote about half of each number to the publication of these lectures—the remainder to be occupied with such matters as University intelligence, and scientific and general news. A very able article entitled "The Origins of the Vernacular Literature of Hindustan" by Mr. G. A. Grierson, C.S., is to be found in the second number, which likewise contains an interesting article by the Editor on "The Calcutta University and its Critics." The new Journal is handsomely got up and full of readable matter. We hail its appearance and believe that it is likely to have a large circulation.

Messrs. Luzac and Co.'s *Oriental List* should be in the hands of everybody desirous of obtaining the most recent and the most accurate information about Oriental books, periodicals and publications of every kind. This exhaustive *List* is published monthly, is now in its fourth year, and costing as it does only two shillings per annum (post free), deserves

the cordial support of all scholars and students in the East. The *List* notices Oriental works published, and in preparation, in all quarters of the globe, and about the more important of these it gives valuable details. The head-quarters of the firm are just opposite to the British Museum. Messrs. Luzac and Co. have been appointed official Agents for the sale of Indian Government publications, and publishers to the Secretary of State for India in Council; and they now invite Oriental students to submit to them manuscripts intended for publication, before going elsewhere. The firm has thus entered upon a line of business that has hitherto been regarded as being in an especial manner the private preserve of Messrs. Trubner. All orders should be addressed to "Messrs. Luzac and Co., 46, Great Russell Street, London, W.C."

We desire to invite the special attention of our readers to "The *Maharani* Prize Competitions." Two prizes of one sovereign each—one restricted to subscribers to *The Maharani*, the other open to all competitors—are offered by Setupati The Rajah of Ramnad and Rajah G. N. Gajapati Rao, C.I.E., "for the most complete set of Notes prepared from actual observations about what is going on in nature, especially in connexion with Trees and Plants, Blossoms and Flowers, Fruits and Vegetables, Birds and Butterflies in their respective seasons, supplying reliable information from which Parents and Teachers may draw valuable material for Object lessons." It was an excellent idea on the part of Rao Bahadur V. Krishnama Chariyar, F.M.U., the accomplished Editor of *The Maharani*, in its triple guise of Tamil, Telugu, and Malayalam, to institute his competition on the above-mentioned lines. He is also clear about his object. He says—"We hope to attract to practical observation some students at least and others who now pass carelessly along life's road which, though richly studded with hidden gems, is to them bare and barren of interest." The details of the competition may be gathered from *The Maharani*, or by application (containing a stamped and addressed envelope) to "The Editor, *The Maharani*, Old College, Madras." Great good will have been done to the Indian student if he is thus even partially weaned away from what Tennyson calls "poring over miserable books," and taught to use his eyes to advantage in appreciating the beauties of nature.

Perhaps the most valuable result of all education is the ability to make yourself do the thing you have to do, when it ought to be done, whether you like it or not; it is the first lesson that ought to be learned in a man's training, and is probably the last that he learns thoroughly.—*Huxley*.

REVIEWS AND NOTICES OF BOOKS.

AURANGZIB ("Rulers of India" Series) by Stanley Lane-Poole, B.A., author of the Catalogue of Oriental and Indian Coins in the British Museum, the Life of Visct. Stratford de Redcliffe, &c.: Oxford at the Clarendon Press: 1893. 2s. 6d.

This volume in the Rulers of India series is written by an author who has much knowledge of Muhammadan history. In addition to the two works mentioned on the title page, Mr. Lane-Poole published in 1888 a History of Turkey. The book is, therefore, more accurate than are some volumes of series written for booksellers, and it gives a very clear sketch of the career of the last great Mughal Emperor.

The son of Sháh Jahán and of the Empress whose tomb is the Taj at Agra, Aurangzib was born in 1618, only thirteen years after the death of his great grandfather, the famous Akbar. As a young man of eighteen he saw service in Central Asia, and his abilities were such that he was afterwards placed in command of the army in the Deccan. In that post he was successful and obtained a treaty of tribute from the King of Golconda under the walls of that fortress, but he had to march north from the Deccan in 1658 when his father's illness had incited his three brothers each to take up arms for the succession to the throne. In this fratricidal contest, Aurangzib was victorious. He imprisoned his aged father and himself became Emperor at the mature age of forty. For many years all went well with him. He conquered the Muhammadan Kings of Bijapur and Golconda and extended the borders of the Empire of Delhi beyond Tanjore. But the Mahrattas of the Western Ghats, commencing as despised marauders, grew into a power that was able to waste the last years of the old Emperor in inglorious warfare, and he sank wearied and disheartened into his grave in 1707, having reigned nearly forty-nine years.

In the Deccan campaigns, the author follows Elphinstone, and there is little original matter; but the book is enlivened with picturesque glimpses of the Mughal Court by extracts from the description given by the few Europeans who then ventured to visit India, and these serve to bring this historical era vividly before the eye of the reader.

The chapter on Revenue is all too short. Had an Indian official written this book the dissertation upon Aurangzib's revenue administration would have occupied much more space.

Upon the merits and defects of the general administration of Aurangzib the author has pronounced views. He thinks that the latitudinarian tolerance of Akbar is the correct attitude of an Indian Ruler,

and that Aurangzib alienated the Hindus and ruined his Empire by his religious intolerance. There is much to be said on both sides of the question. Mr. Lane-Poole's views are those which are put forward by Macaulay in his *Essay on Gladstone on Church and State*. But one cannot expect to find these views in the seventeenth century. In the author's own country neither Cromwell nor Land held these tolerant views, and they were contemporaries of Aurangzib. We imagine that Akbar was tolerant not because he was a wise statesman, but because he was a bad Mussalman. We can see that Aurangzib was intolerant, not because he was an incompetent ruler, but because he was a devout follower of the Prophet. There are several sentences in this book which show that Mr. Lane-Poole is incapable of entering into the thoughts of the man whom he criticizes. As a young man, Aurangzib wished to adopt the ascetic life of a *fakir*, and when only twenty-four retired for some months to the Western Ghats as a hermit. The author calls this a bizarre proceeding, and speaks of "the youthful impulse of a morbid nature excited by religious enthusiasm." Perhaps if the youthful Prince had persevered, the whole Mahratta nation might have come under his spiritual influence, and peace might have had another victory "no less ~~valuable~~ than war." But the author contradicts himself, for in speaking of the problem that confronted Aurangzib when he came to the throne, he laments over the decay of the pristine virtues of the Mughal troops who had given up the religious convictions of their fathers. "Childish superstition or impotent indifference had taken the place of the old faith; and immorality and debauchery had followed close upon the loosening of the religious bond." Surely if religion is beneficial to a trooper, it must be beneficial to a King, but the author will not have it so. He admits that the Emperor was just and humane and exceedingly patient in listening to petitioners, but "the people saw through the suave manner and placid amiability of the judge who listened so indulgently to their petitions, and perceived a bigot's atrophied heart behind the gracious smile."

In conclusion, as this is an educational periodical, we have to say that the defects in the author's style render this volume valueless as a text-book for Indian students. Vulgar phrases are not the less vulgar when enclosed in inverted commas. "It needed a lavish expenditure of bakshish to 'square' the army." "Sivaji crowned his iniquity by making a convoy of royal treasure 'bail up.'" "But Aurangzib was unco gude." If the author justifies the last phrase on the authority of Burns, we must point out that Burns wrote 'unco guid.' Also, the description of Aurangzib's victory over his brother seems to be inaccurate. On page 46 we are told that the right of Prince Dára's army was commanded by Khalit-Allah Khan; on page 47 we are told that the engagement became

general; on page 48 we are told that Dará's right was hotly engaged; and on page 49 we are told that Khalit-Allah, the commander of the right wing, had looked on with his 30,000 troops without stirring a finger in the fight. In the same description the author, speaking of the courage of Prince Dará, says "No Mughal Prince, as yet, know the colour of the white feather." The white feather was at the back of the helmet, and combatant who turned to fly was said to show the white feather. The author's sentence, as it stands, means that no Mughal Prince had ever seen an enemy fly before him. But the author is not happy in the use of metaphors. Speaking of the old age of Sháh Jahán and the contest between the sons, he says "The fragments of the sceptre, like the rods of the Egyptian sorcerers, turned into so many serpents, which hissed about his throne, and strangled the remnant of his power, till the rod of Aurangzib swallowed up the rest, and with them the Peacock Throne." As this Peacock Throne is described elsewhere as of the size of a four-post bed, the feat of swallowing it was very creditable to a serpent which began life the size of a fragment of the sceptre.

GEOLOGY, an elementary handbook, by A. J.ukes-Browne, F. G. S.: London: Whittaker & Co., and Geo. Bell & Sons: 1893. With 24 Illustrations. 4s. (*Library of Popular Science*.)

To condense the subject of Geology into 237 half octavo pages the author has omitted all that comes under the heads of Chemistry, Mineralogy, and Biology. He begins with an enquiry into the composition of aqueous rocks giving the microscopic structure of various limestones. He then treats of the weathering and breaking up of existing rocks. The change of temperature, he writes, causes large pieces of rock to split off the surface and these pieces, he says, are of course split again and again by a repetition of the process. As regards this statement it is desirable that some proofs should be given, for the smaller the pieces become the less must become the strains due to inequality of temperature. Experiments are here evidently called for. The formation of coral reefs is accounted for by slow sinking of coasts and islands, but it is at the same time allowed that some portions of the sea bottom may have been raised from greater depths just sufficient to permit the growth of corals on them and thence the formation of reefs. In the short chapter on igneous rocks with illustrations of rock sections the author gets over the usual difficulty of classification, by dividing these rocks into coarse grained and fine grained rocks. The coarse grained include Granites and Diorites, the fine grained Felsites and Basalts. As regards the cause of earthquakes and of movements in the earth's crust the author assumes the earth to consist of liquid matter with the exception of the exterior crust of about 25 miles thickness,

As regards the compression of rocks through local depression, which the author speaks of on page 96, it must be stated that such local depression cannot be of any appreciable amount. If the portion of the earth's surface which rests on a chord of 100 miles is depressed down to the chord, a depth of 1668 feet, the reduction in length is only 12 feet, or 1 in 43,000. This is a mere nothing if we consider that strata 100 miles or more in width are sometimes reduced to half their length. A trifling change of temperature (taking marble as basis of calculation) amounting to less than 3° centigrade would produce exactly the same effect. It is therefore clear that quite different forces come here into play, although these forces are as yet unknown. In fact the author himself writes of the existence of such forces (see page 122). In a chapter on erosion and denudation examples are given of the carving of hills, escarpments, and outliers. As a result of erosion a man may step across a fault and have one foot on a rock, the continuation of which is many thousand feet below the other foot. Deep seated igneous rocks are exposed by the denudation of overlying strata.

Historical Geology is introduced by a chapter on the succession and division of rock strata, their fossil remains, continuity or unconformity. A large portion of very old sedimentary rocks are called the Archean rocks, and the organic remains known in them are only worm tracks and the obscure Oldhamia. We observe that the author ignores Dawson's Eozoon, the oldest fossil animal. The following shows in descending order the author's arrangement of the sedimentary systems from above downwards (See page 157):—

Neozoic	{	Z.....system.
		Y.....system.
		Cretaceous.....system.
		Jurassic.....system.
		Triassic.....system.
Palaeozoic	{	Permian.....system.
		Carboniferous system.
		Devonian.....system.
		Silurian.....system.
		Ordovician.....system.
		Cambrian.....system.

The successive systems are all illustrated by well executed characteristic fossils of each. For the usual 3 or 4 systems of the Cainozoic, and for the post-pliocene or quaternary period the author substituted systems Y and Z. The former comprises the Eocene and Oligocene, and the latter comprises all from Miocene upwards. The author might as well at once have chosen proper names for them.

About the animal remains of the youngest (Pleistocene) strata in England the author remarks that some are survivals from the Pliocene,

and the new introductions are northern and mountain species which appear to have invaded Europe at this time from the high plateaus of Asia. With them, too, came the first human inhabitants of Europe, and this sudden appearance of Man on the scene seems to prove that he originated outside of Europe.

Lastly the author has added a small geological map of England and Wales. As he says elsewhere it happens that the British Islands are specially favoured in so far as a representative of every system of sedimentary rocks is to be found in England alone. So that it has been said that England is an epitome of the Geology of Europe.

The book is written so as to serve students of Geology in Great Britain particularly.

INTRODUCTORY MODERN GEOMETRY of Point, Ray, and Circle, by William Benjamin Smith, A.M., Ph.D.: London: Macmillan & Co. 1893. 5s.

This elementary work on Modern Geometry seems to us to possess considerable merit. Defining geometry as the doctrine of space, the author proceeds to observe that space is permanent and unchangeable, that it is precisely alike throughout its whole extent, that it is boundless and continuous and triply-extended. Starting with the notion of a sphere-surface as the locus of a point at a fixed distance from a fixed point, a plane is defined to be the locus of a point equidistant from two fixed points, and a ray or a straight line, the locus of a point equidistant from three fixed points. The connection thus traced between sphere-surfaces and planes and straight lines is exceedingly interesting. Linear relations are discussed in a suggestive manner under the heads of congruence, triangles, parallelograms, and the circle. Much useful information, not to be found ordinarily in books on Euclidian Geometry, is given in a chapter of fifteen pages on Symmetry. The chapter on Constructions contains hints for the solution of problems connected with the contact of circles and straight lines. The latter half of the book deals with areal relations. The criteria of equality are laid down with precision and applied to a number of cases. We have said enough to show that the book is worthy of careful study by every lover of geometry. The language used by the author is at times needlessly puzzling, but the writer on Modern Geometry feels bound to adopt a nomenclature of his own, if only to emphasize the fact of his conscious divergence from antiquated and obsolete methods. We would recommend this book strongly to such as wish to get a clear, though necessarily a small, insight into the methods of defining and reasoning of Modern Geometry.

THE STUDENT'S ARITHMETIC, by J. D. R. Jelly. Madras: Higginbotham and Co. 1893. Rs. 1-12-0.

The author of this treatise on Arithmetic in theory and practice observes in his preface that "among the numerous publications already in existence, the Author sought in vain for a work of this description." Of course, we know the sense in which this is meant to be understood; but in that sense, it is far from true. It is a book that the students of Southern India could well have done without, and we unhesitatingly affirm that many existing treatises are vastly superior to the book under review. The language used in defining and explaining is inaccurate. The introduction of coins like the Noble, the Moldore, the Jacobi, the Mark, &c. is scarcely to be commended. The book contains a good many examples for solution, but in a subject like Arithmetic, there is no difficulty in making examples by the hundred. Even a look of originality may be given to the problems by a judicious alteration of the numbers involved. We cannot venture to assert that a book like this will find no sale, because it is but too well known to us how foolish most Hindu students are in the choice of books; but we trust that Mathematical teachers in secondary schools will see to it that their pupils use books of real worth, and not books such as the one under review.

ELECTRICITY AND MAGNETISM—a Popular Introduction by S. R. Bottone. With 102 Illustrations. London: Whittaker & Co., 1893. 3s. 6d. (*Library of Popular Science.*)

The preface of this volume informs us that the object is to "present an easy and attractive introduction to the sciences of electricity and magnetism" and that "the work is not intended as a text-book." Such being the declared object of the book, it should be leniently dealt with, and however much we may doubt whether the object has been attained, or whether, indeed, it is worth attaining, the book must be judged only by its pretensions. At the same time it would appear that the chief object of the book really is to form an introduction to other books by the same author. At least this is what we would judge from the references to these books and especially from the following rather remarkable sentence:—"Many instruments are left entirely unnoticed since these can be perfectly understood from a perusal of this work after reference to more technical works, written by the author."

We confess that to us the work is anything but attractive and we cannot believe that there is any demand for a treatise of the kind containing no distinctive features either in text or illustrations to justify

its existence. The great drawback to a book written as this is lies in the imperfect explanation of the action of many of the machines described and the introduction on the other hand of some abstruse (and doubtful) theoretical ideas about electricity. Take for instance the following:—"The modern theory of electricity, generally known as the *molecular* or *mechanical* theory, considers the phenomena which we have classed under the heading of electricity as being due to motion in the molecules of matter, similar in kind but differing perhaps in direction, in amplitude, and rapidity to those which we know as sound, heat, and light." Surely if the student gets any idea at all from this it will be a false one. Again "It must be borne in mind that the electro-motive force set up in a body is the *rate of motion* of its particles amongst one another....." We should like to know how the author has proved this. Similar remarks abound and give, we maintain, an entirely false notion of the modern theory of electricity, while certain paragraphs, such as those on thermo-electricity give an equally false view of the facts. We cannot recommend the book to beginners.

BOOKS RECEIVED.

- ABRIDGMENT OF THE HISTORY OF INDIA, by J. C. Marshman C. S. I.; London: W. Blackwood & Sons: 1893. 6s.
 LORD OLIVE ("Rulers of India" series) by Col. G. B. Malleson C.S.I.; Oxford at the Clarendon Press: 1893. 2s. 6d.
 CHAUCER, THE CLERKES TALE, ed. by E. H. Elliot B.A.; Madras: Srinivasa Varadachari & Co.: 1893.
 THEORY OF ARDHANUSVARA IN TELUGU by T. V. Seshagiri Sastri, M. A., (Supplement to the author's Telugu Philology).
 A DREAM & OTHER POEMS by Hafed; Madras: Srinivasa Varadachari & Co.: 1893.
 FEMALE EDUCATION IN BENGAL by James Wilson, Editor, Indian Daily News, Calcutta: 1893.
 MACCULAY, WARREN HASTINGS, ed. with Notes and Appendices by K. Deighton; London: Macmillan & Co: 1893. 2s. 6d. (English Classics).
 A HISTORY OF INDIA by Sir Roper Lethbridge; London: Macmillan & Co.: 1893. 2s.
 HOMER, ILIAD VI., ed. by Walter Leaf, Litt. D., and M. A. Bonfield, M. A. London: Macmillan & Co: 1893. 1s. 6d. (Elementary Classics).
 A SHORT HISTORY OF THE ENGLISH PEOPLE by J. R. Green, Part 21; Macmillan's Illustrated Edition: London: 1893. 1s. nett.
 A HAND-BOOK OF ENGLISH GRAMMAR: Mission Press, Surat: 1891. 8 cs.

We are able to announce on the best authority, but we regret to say that authoritative information reached us too late for regular notice in our Editorial or Indian pages, that the appointment of Acting Director of Public Instruction, Madras, has been offered to, and accepted by, Mr. A. Munro, M.A., B.C.L., Barrister-at-Law, Inspector General of Education, Central Provinces. Mr. Munro is an old Madrasite of long standing, whose services had been lent to the Central Provinces, and his numerous friends in the Madras Presidency will be glad to hear of his return.

MADRAS GOVERNMENT WRITTEN EXAMINATION FOR TEACHERS' CERTIFICATES.

MAY 1893.

BOARD OF EXAMINERS.

MR. GEORGE BICKLE (*President*); MRS. BRANDER; MISS CARR; MR. C. NAGORI RAU, B.A.; MR. M. T. QUINN, M. A.; Rev. W. SKINNER, M. A.; MR. J. H. STONE, M. A.; MR. P. VIJAYARANGA MUDALIYAR (*Secretary*).

SECOND-GRADE COLLEGIATE.

ORGANIZATION, SCHOOL REGISTERS AND RETURNS, AND OFFICIAL CORRESPONDENCE.

MONDAY, MAY 8TH—11 A.M. TO 2 P.M.

I. Enumerate all the conditions a recognized school must fulfil in respect of sanitation.

II. With what apparatus ought a middle school to be provided for the proper teaching of the arithmetic prescribed for its three forms?

III. A street runs due N. and S., and near its entrance into the town there is a piece of ground on either side available for a school-house and a play-ground. If the choice were left to you, which would you select, and why? Draw a sketch showing where the school, latrines, gymnastic shed, and well should be located.

IV. Fill in, in the proper way, the accompanying register, observing the following particulars, and show at the foot of the form the average number on the roll and the average daily attendance, both accurately calculated: No. 1 leaves after school on the 10th, 6 on the 16th, and 9 on the 22nd; 13 is admitted in the morning of the 6th, 14 on the 14th, and 15 on the 21st; 2 is absent without leave in the afternoon of the 2nd, 3 on the 7th and 8th, and 10 in the morning of the 16th; 11 has leave on the 9th and 12 on the 7th; and there is no school on Saturday and Sunday.

V. State the difference in the registers to be kept between merely recognized schools, aided schools, and Board schools.

IV. A pupil comes to you for admission in the middle of a term from a recognized school and another about the same time from an unrecognized school. Under what circumstances would you admit them, and how would you determine into what classes you would put them?

VII. Make a time-table showing the work of a third form for a week, and at the bottom give a statement exhibiting the time devoted to the several subjects and the teachers to whom they are entrusted.

VIII. Write, in your capacity of head of a school, an official letter complete in every respect, to the proper authority, proposing improvements in the ventilation of your school.

DISCIPLINE.

MONDAY, MAY 8TH—3 TO 4.30 P.M.

I. Why is it easier to maintain order in a class of weak children than in one consisting of strong and healthy ones? In what different ways can a teacher prevent the activity of the latter from breaking out into disorder? Which of these methods should a teacher adopt, and why?

II. To what extent does discipline in a school depend on the teacher's voice, manner, and character?

III. How does copying in a school affect its discipline, the moral character of the boys, and their intellectual progress? What is the most effective mode of preventing it?

IV. What is meant by the corporate life of a school, and what means would you suggest for promoting it?

V. Show how bad accommodation or a carelessly drawn up time-table may make the maintenance of order in a school difficult.

VI. Show how the instinct of curiosity, which is often a cause of inattention on the part of children, can be made the means of fixing their attention on the lesson taught.

METHODS OF TEACHING, ORAL TEACHING AND NOTES OF A LESSON.

TUESDAY, MAY 9TH—11 A.M. TO 2 P.M.

I. Write full notes of a lesson on one of the following; state generally what you suppose the pupils to know beforehand bearing on the subject, and pay particular attention to "time" and "suitability to class":—

- (a) The administrative system of a district.
- (b) The climate of the Madras Presidency.
- (c) A chair.

N.B.—Twenty-five per cent. of the marks are assigned to this question.

II. In teaching writing to what extent would you use Mülhauser's rhomboids, and "tracing"? What considerations should determine the size of the writing of beginners? What reasons are there for teaching children to write upright rather than with a slope?

III. What principles would guide you in using the vernacular in teaching geography to the third class, second form, and fifth form respectively?

IV. What are the advantages of making the pupils in a class use exercise books of a uniform pattern for composition and translation exercises? What rules would you enforce to secure neatness in the use of such books?

V. Say concisely what procedure you would adopt in teaching:

- (a) The rule of signs in algebraical multiplication.
- (b) Euclid I. vii.

VI. Happy the man whose wish and care
A few paternal acres bound,
Content to breathe his native air
In his own ground.

Whose herds with milk, whose fields with bread,
Whose flocks supply him with attire;
Whose trees in summer yield him shade,
In winter, fire.

Best who can unconcern'dly find
Hours, days, and years, slide soft away
In health of body, peace of mind,
Quiet by day.

Sound sleep by night, study and ease
Together mix'd; sweet recreation;
And innocence, which most doth please,
With meditation.

Thus let me live, unseen, unknown;
Thus unlamented let me die;
Steal from the world, and not a stone
Tell where I lie.

Choose any consecutive two or three lines of the above the meaning of which you think would not be readily grasped by the fifth form, and show, by a series of questions and the answers you would expect to receive, how you would elucidate it.

UPPER SECONDARY GRADE.

ORGANIZATION, SCHOOL REGISTERS AND RETURNS, AND OFFICIAL CORRESPONDENCE.

MONDAY, MAY 8TH—11 A.M. 2 P.M.

I. In the case of a Lower Secondary School, specify (a) the educational qualifications that should be found in the General Staff, and (b) the proportion that should exist between Teachers and Pupils.

II. How would you act if you were Head Master of a school and found that one of your pupils had obtained admission by making false representations to you?

III. How often should examinations be held, and how should promotions be determined (a) in Lower Secondary, and (b) in Primary classes?

IV. State briefly the furniture and apparatus required for a Primary School.

V. Give the directions for keeping the *Attendance and Fee Register*.

VI. Draw up, on a separate sheet of paper, a blank specimen form of the *Term Fee Register* for a Lower Secondary School without Primary Classes.

VII. (a) From what registers may particulars regarding the (1) *age*, (2) *height*, (3) *religion*, and (4) *fees* of a pupil be obtained for the purpose of returns? (b) Explain fully what is meant by "average attendance."

VIII. As Head Master of a Primary School, write to the Manager an official letter reporting the results, as regards your pupils of the Primary School examination; and fold and docket your letter in the usual official form.

DISCIPLINE.

MONDAY, MAY 8TH—3 TO 4.30 P.M.

I. "Do not give a command which you do not intend to have obeyed." What is the reason for this rule? Give some examples of the way in which it is apt to be violated by teachers.

II. It is said that children may be governed almost entirely through their natural impulses. Show how the *curiosity* which is natural to children may be made use of for this purpose.

III. What measures would you recommend for the purpose of securing regularity of attendance?

IV. What place would you assign to punishment among the means of preserving discipline? Describe the injurious effects of excessively severe punishments.

V. What are the advantages and disadvantages of prizes as a means of inciting pupils to exertion?

METHODS OF TEACHING, ORAL TEACHING AND NOTES OF A LESSON.

TUESDAY MAY 9TH—11 A.M. TO 2 P.M.

I. Write full notes of a lesson on one of the following; state generally what you suppose the pupils to know beforehand bearing on the subject, and pay particular attention to "time" and "suitability to class":—

- (a) The Madras or South Indian Railway.
- (b) The cultivation of paddy.
- (c) A chair.

N.B.—Twenty-five per cent. of the marks are assigned to this question.

II. What defects in pupils lead to their giving incorrect or imperfect answers to teaching questions? How would you deal with such answers with a view to reducing the probability of their recurrence?

III. What hints on map-drawing, as prescribed for middle school classes, are given in the Madras Educational Rules?

IV. Describe clearly how you would proceed in giving a first lesson in simple addition.

V. How would you conduct a writing class in the fourth class?

Describe clearly not more than six distinct faults in writing which you would expect to meet with in the exercise books (*not copy books*) of the second form, and say what steps you would take to correct each.

N.B.—General imperfections, such as illegibility, indistinctness, want of neatness, want of style, bad formation of letters, &c., are not asked for.

VI. Copy the following stanzas :—

She dwelt among the untrodden ways
Beside the springs of Dove;
A maid whom there were none to praise,
And very few to love.
A violet by a mossy stone
Half hidden from the eye!—
Fair as a star, when only one
Is shining in the sky.
She lived unknown, and few could know
When Lucy ceased to be;
But she is in her grave and O!
The difference to me.

(a) Underline in each line the word on which the principal stress of the voice would fall in reading aloud.

(b) Write a list of not more than eight words suitable for parsing by the third form, and say why you select each.

(c) Show by a series of questions and the answers you would expect to receive how you would elucidate the meaning of the portions in italics.

LOWER SECONDARY GRADE.

ORGANIZATION, DISCIPLINE, REGISTERS AND RETURNS OF AN UPPER PRIMARY SCHOOL.

MONDAY, MAY 8TH—11 A.M. TO 1 P.M.

I. How would you deal with :

- (1) Pupils' lack of interest in their school work.
- (2) Pupils' non-preparation of home lessons.
- (3) Assistant Teacher's preparation of lessons.

II. In what directions and by what means do you endeavour to influence the characters of your pupils?

III. Draw up a statement of attendance for a class containing 4 pupils, for a month, as it would appear in the attendance register, and find the average daily attendance of the class.

IV. Draw up a time-table for a complete Upper Primary School, officered by a Head Teacher and three Assistants.

V. Teachers sometimes complain that their salaries are not paid punctually. How may the acquittance roll be so kept as to show whether such complaints are true or not?

VI. What returns must be furnished to the Education Department by the Manager of an Upper Primary School aided on the salary-grant system? What are the purposes of those returns?

METHODS OF TEACHING; ORAL TEACHING AND NOTES OF A LESSON.

TUESDAY, MAY 9TH—11 A.M. TO 2 P.M.

I. Describe what you would consider to be a good lesson.

II. Write a sketch of a lesson, such as you would exhibit on the black-board, for the fourth class, on one of the leading facts of Indian History.

III. Write full notes on one of the following lessons :—

- (a) Notation for the first class.
- (b) Simple notions of the solar system for the fourth class.

IV. (a) What are the advantages derived from writing notes of lessons?
(b) Distinguish between class notes and full notes of a lesson.

V. (a) What is the chief object of teaching kindergarten occupations and object lessons in schools?
(b) Take an occupation or an object lesson and explain what difference you would make in teaching it to the infant and the second class.

VI. (a) What are the advantages of oral teaching?
(b) Name the classes and subjects that chiefly require oral teaching?

VII. Of what use are home exercises? What home exercises would you give to the fourth class?

PRIMARY GRADE.

REGISTERS AND RETURNS OF A LOWER PRIMARY SCHOOL.

MONDAY, MAY 8TH—11 A.M. TO 12-30 P.M.

I. What is the use of keeping an Attendance Register?

II. (a) What records in a school supply the materials for the Monthly Returns?

(b) Draw up a form of the Monthly Numerical Return with the headings complete.

III. Show how the following columns in the Admission Register are useful :—'Name of father or guardian,' 'Reason for leaving,' and 'School to which the pupil has gone.'

IV. From the Attendance Register printed below, calculate (1) the average number on roll, and (2) the average attendance :

Attendance Register for February 1893.

NAME.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	Number of day present.
Appasawmi ..	x	x	x	x			x	x	x	x					x	x	x	l		x	l	x	x							
Kannan ..		x	x	x			x	x	x	x					x	x	x			x	x	x	x							
Satagopan ..		x	x	x			x	x	x	x					x	x	x			x	l	x	x							
Parthasarathi ..		x	x	x			x	x	x	x					x	x	x			x	x	x	x							
Murugesan ..		x	x	x			x	x	x	x					x	x	x			x	x	x	x							
Ratnavelu ..				x			x	x	x	x					x	x	x			x	x	x	x							
Natesan ..							x	x	x	x					x	x	x			x	x	x	x							
Ponnusawmi ..							x	x	x						x	x	x			x	x	x	x							
Number present daily ..																														

ORAL TEACHING AND NOTES OF A LESSON.

TUESDAY, MAY 9TH—11 A.M. TO 1-30 P.M.

I. What are the objects to be aimed at in teaching Arithmetic? Sketch a lesson on Notation.

II. What are the advantages of Oral Teaching?

III. Write notes of a lesson on the Geography of your district.

IV. Explain, as to a third standard or class, the relation between the earth and the moon and the cause of an eclipse of the moon, using any familiar illustration.

V. Write notes of an object lesson on sugar and mention what materials you would provide yourself with, to illustrate the lesson.

VI. Mention what kindergarten lessons may be taught with the use of cadjan leaves.

WATCH carefully to see if the children know what your words mean, especially if they are of foreign parentage and do not hear English idioms at home.

The most helpful biographies of educators are :—Quick's "Educational Reformers," Laurie's "Comenius," Lives of Pestalozzi, Horace Mann, Roger Ascham, and Thomas Arnold.

MADRAS EDUCATIONAL NOTIFICATIONS.

University.

In the list of text-books in Kanarese prescribed for the B. A. Degree Examination of 1893-94, page 463 of the University Calendar for 1892-93, Vol. I.—

For Pamparamayana, Asvasas 10 and 11. Read Pamparamayana, Asvasa 10.

For Vrishabhendravijaya, Sandhis 1 to 4. Read Vrishabhendravijaya, Sandhis 1 to 3.

* SENATE HOUSE, 27th June 1893.

(By Order)

Ootacamund, August 15, 1893.

No. 68.—Under section 12 of Act XXVII of 1857, the Right Honorable the Governor in Council is pleased to authorize the affiliation of the Baptist Mission College, Ongole, to the University of Madras as a Second-grade College, with effect from 1st January, 1894.

Leave.

Ootacamund, August 25, 1893.

No. 69.—Mr. J. Bradshaw, M.A., LL.D., privilege leave for one month and thirteen days, from or after the 28th August 1893, under article 291 of the Civil Service Regulations.

Appointment.

Ootacamund, August 22, 1893.

No. 71.—

Grade.	Name of Officer.	Designation of post.	Nature of appointment.
Third grade	Melur Rangachariyar, M.A., Third Lecturer, Rajahmundry College	Lecturer, Rajahmundry College.	To act during the absence of M. R. Ry. N. Vaidyanadha Aiyar, M.A., on leave, or until further orders.

Educational Books.

Notice is hereby given that copies of the following Educational books have been received at the Office of the Director of Public Instruction, where they may be seen at all reasonable times:—

English.

	£	s.	d.
POPE (Rev. G. U.), LITTLE RAJA'S PRIMER OF INDIAN HISTORY, Messrs. Longmans, Green and Co. ...	0	1	0
LONGMANS' "SHIP" HISTORICAL READERS, Messrs. Longmans, Green and Co.—Book 4, Stories and Biographies, 1066-1485. ...	0	1	4
Book 5, The Tudor Period ...	0	1	6

Tamil.

THE NALADIYAR OR FOUR HUNDRED QUATRAINS, with introduction, translation and notes, POPE (REV. G. U.) ...	...
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Hindustani.

	Rs.	A.	P.
Haji Ibrahim Sait Sahir, Gulzar-i-Ibrahim, Thilislam-ai-Hydrath, Triplicane. ...	0	3	0
Gulam Muhammad Khan, Qadai Muhammad, Parts I and II, Muthbai Islamiyah, Lahore ...	...	...	...

Persian.

Gulam Muhammad Khan, Qadai Muhammad, Muthbai Islamiyah, Lahore ...	...
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Office of the Director of Public Instruction,
Madras, 5th August 1893.

D. DUNCAN,
Director of Public Instruction.

THE INDIAN JOURNAL OF EDUCATION

Vol. VII.]
(New Series)

OCTOBER 1893.

[No. 82.]

The Editor has to remind all LITERARY correspondents, as well as publishers forwarding books, magazines, etc., for review, that, to ensure attention, they should be addressed to him at PACHAIYAPPA'S COLLEGE, MADRAS; and, for publication or notice in the succeeding issue, should reach him not later than the 20th of each month. No unsuitable contributions will be returned. All BUSINESS communications should be addressed to the Publisher.

EDITORIAL NOTES.

The Port St. George Gazette of the 12th ultimo contains an official announcement regarding the most important educational appointment which it is in the power of the Madras Government to bestow. As we stated in our July number, Mr. D. Duncan, M.A., D. SC., Director of Public Instruction, Madras, intended to proceed to England on one year's furlough at the end of last August. But his departure had to be deferred to the end of September owing to the difficulty in which Government found itself of deciding who was to receive the acting appointment. Next after Dr. Duncan in the Madras Presidency, the following educational officers rank respectively in the order here given:—Mr. W. H. Wilson, PH. D., F.C.S., F.G.S.; Mr. John Bradshaw, M.A., LL.D.; Mr. E. P. Metcalfe, M.A.; Mr A. Monro, M.A., B.C.L.: and from among these four the

choice had to be made. Dr. Wilson did not seek the appointment, much preferring a life of peaceful scientific research in his laboratories to any other post in his department. Mr. Metcalfe also seems eventually to have withdrawn his candidature, perhaps out of a feeling of chivalrous loyalty to Rajahmundry and as being slightly out of touch with the educational life of the Presidency at large through his long and devoted services as Head of the great College in the Telugu country. The choice thus lay between Dr. Bradshaw and Mr. Monro, the former being the senior.

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For such an appointment as this, Dr. Bradshaw possesses every conceivable educational qualification. He had been for a couple of years Head of a Government Institution on the West Coast; later on, he was Professor of History at Presidency College, Madras; and finally he has been Inspector of Schools in almost every quarter of the Presidency. He thus possesses the three precise qualifications laid down in set terms by Government as being eminently desirable in every Director of Public Instruction. He has besides edited numerous text-books for Government, and has been a member of nearly every Educational Committee that the Madras Government has appointed in his time. He has often examined for the University, and always taken an active part as a Fellow. His literary accomplishments are amply proved by the scholarship exhibited in the different volumes which he has edited. He is in touch with and personally acquainted with most of the educational men and institutions in the Presidency. It is therefore no matter for surprise that he has appealed to the Secretary of State for India because he has not been selected for the acting appointment.

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The appointment has been conferred upon Mr. A. Monro, M.A., B.C.L., Barrister-at-Law, Inspector-General of Education, Central Provinces. Mr. Monro is an old Madrasite of long standing. His first acquaintance with India was as a member of the Madras Educational Department, which he entered as an Inspector of Schools so long ago as 1879; and the first ten years of his Indian career were spent under the Government of Fort St. George. At Oxford he took a First Class in Mods. from Oriel in 1868, and his Degree with Honours in 1870. He was appointed a Fellow of the Madras University in 1885, and a member of the Educational Con-

ference in 1886. Early in 1889 he was appointed Inspector-General of Education in the Central Provinces, a post which he has ever since continued to hold with high credit to himself and benefit to all concerned. "Inspector-General" is only another name for "Director of Public Instruction" in the Central Provinces; and the fact that Mr. Monro has for so many years, and with such excellent results, been actually performing the duties of Director, may fairly be regarded as having gone a long way towards predisposing Government in his favour. His recall to the scene of his former labours has been welcome news to his old friends; and the courtesy, *savoir faire*, and administrative capacity which have marked his career in the Central Provinces are likely to justify the confidence reposed in him by the Government of Madras.

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In the "Report on the Operations of the Punjab Association for the year 1892", the Committee, in speaking of the Girls' Schools under their charge in Lahore, invite attention to a point of supreme importance in connexion with the future of female education in India. "When we pass from the Primary to the Secondary stage of instruction," says the Report, "we find *very few* girls continuing their studies. This great disparity is due, in the first place, to the custom, generally prevalent in India, by which girls are withdrawn from school as soon as they are married: and as girls in India are married early, they practically leave school just when they reach an age at which they begin to understand what education really means. In the second place, it is due to the fact that girls under education, being mostly poor, are withdrawn from school to the work of the household shortly after they pass their twelfth year. For some time, it is feared, these two difficulties in the way of female education will continue in full force. The only way then to counteract the evil is by organizing classes for home teaching, which will carry the torch of knowledge into the zenanas of the respectable classes. After everything has been done by men of light and leading to induce or influence parents not to withdraw their girls from school at an age at which they are now withdrawn, we are afraid the practice will remain sufficiently in operation to affect injuriously the progress of education, at any rate among women of the better classes." This is a subject of such vital import to the truest and highest interests of the country that we anxiously

look forward to see it taken up and pressed upon the attention of the people by all native advocates of Social Reform. The few native girls who are allowed to go to school at all in this country are withdrawn at the early age of ten or twelve. In Western countries girls remain at school till they are at least sixteen. Darkness and ignorance are the results of the one system, brightness and culture of the other. It is now for the leaders of native thought to say which system they will choose; and if they choose the right one, it rests with themselves to carry it through with a strong hand and a courageous heart. The words of the Hon. Mr. H. M. Birdwood, delivered last March at the prize distribution of the Alexandra Native Girls' Institution, Bombay, cannot be sufficiently impressed upon the minds of Indian parents. "The spread of female education," said he, "is not only desirable for the refining and ennobling effect it has on the characters of men, but the neglect of it is absolutely suicidal; for where the women remain uneducated, the education of men is an unnatural, artificial thing, which cannot endure. Once educate the women, however, and you have something that will grow. You educate then, not individuals only, but families and nations."

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We note with pleasure that, at a meeting of representative men recently held in the Municipal Hall, Mangalore, with Mr. G. F. T. Power, C.S., in the Chair, it was resolved to organize an Inter-School Gymkhana for the South Canara District. A fund to provide for the cost of trophies and to meet the sundry expenses connected with the holding of the competitions was started in the Hall, and largely subscribed to on the spot. Credit is due to Mr. F. Foulkes for convening the meeting, and to everybody who has helped to promote an undertaking so beneficial to the health and spirits of the boys concerned. Quite recently a similar Association was started in Bombay. We regard it as the duty of leading men all over the country to encourage the practice of Athletics and Gymnastics among Indian School and College boys by starting Associations of this kind in every Province and District where they do not already exist. When similar Associations are at work in every Province, as we hope ere long they may be, it would be well if the winners in the smaller District competitions were sent up to compete at the larger annual competitions to be held in their own Province. For more than a dozen years now, such annual compe-

304.

titions, open with certain restrictions to all School and College students of the Madras Presidency and the adjoining Native States, have been held, and still continue to be held, in the capital of the Southern Presidency. Three of the four Trophies and some of the Prizes awarded last year by this Association are now held by institutions in the adjoining Native Province of Mysore. Some of the Prizes went to the Nizam's Dominions. No doubt prizes open, with similar restrictions, to all the Schools and Colleges of the Bombay Presidency, will now be offered by the new Association recently started in Bombay. We hope before long to see the same principle adopted and worked out in each of the other Provinces. Once this is done, we may look forward with hope to the institution, in some new Oriental Olympia, of regular periodical Pan-Indian Games, determining primarily, indeed, the various Indian Championships, but steadily keeping in view a grander and loftier ideal—the creation of a larger and healthier sympathy, and the gradual fusion of the various peoples of India into one great homogeneous whole by means of the Language and Games of England. Their Language and their National Games were two of the three great ties that bound together as a single people, the various ancient Hellenic states, just as much in the darkest days of internecine war as in the palmiest days of their peaceful triumphs.

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We have been addressed with reference to the remarks made in our last number against the admission of the public to Senate Meetings in Indian Universities. What we then said, as a glance at the page will show, had special reference to the admission of students, and on that head we still see no reason to depart from our position. It would ill beseem the dignity of any body of "grave and reverend signiors," when discussing questions affecting the interests of students, to be exposed to the possibility of being cheered or hooted, like so many actors, by organized bands of thoughtless youths, according as each speaker declared for or against what such students, who are not as a rule the most far-seeing of mortals, frequently mistake to be their ultimate interests. With reference to the admission of graduates and men of position, who might wish to attend these debates, the case is wholly different, and we have nothing to say either for or against such a proceeding. That is a question that might appropriately be taken up and

considered by Graduates' Associations, where such exist, and, if a wish were very generally expressed by graduates to be present on such occasions, we have no doubt that such a wish would meet with careful and respectful consideration from the different bodies concerned. This question has now become one of more than passing interest, owing to the power, recently conferred by Government on certain of the graduates of the Universities of Calcutta, Bombay, and Madras, of electing a certain number of candidates for appointment as Fellows, subject to confirmation by "His Excellency in Council."

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As promised in our last issue, we open with this number a Symposium on "Teaching Universities for India." Our first contribution on the subject is from the pen of the Rev. Dr. Miller, C.I.E., who has been recently nominated by the University of Madras, and confirmed by His Excellency the Governor, as an additional Member of the Madras Legislative Council. We have here the ripe outcome of the large Indian experience of the foremost educationist in Southern India; and we have no doubt that his moderate proposals, and more than he proposes, will be eventually carried out in Madras. The question of Teaching Universities is now distinctly in the air in India; and even if it is not yet time to make a practical effort to change the present nature of our Indian Universities—a point on which opinions honestly differ—it is certainly high time, as Dr. Miller says, "that a right idea should be getting itself formed in the minds of those whose influence will be most felt when the hour for action comes." We hope that the whole question will now be thoroughly ventilated; and we shall be glad if the discussion now initiated in our pages should lead to the formation of a healthy public opinion among Indian Educationists on a question of such vital importance to the liberal culture of future generations of our Indian youths.

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Among the Madras Educational Notifications published in this issue will be found, with the names of their proposers and secondors, the official list of the twelve candidates, from which the names of the two who secure the majority of votes will be reported by the University to Government for appointment as Fellows. Since the publication of the list, Col. Olcott has withdrawn his name. Every name on the list is the name of a well-known man, and every

candidate on the list is worthy of the coveted honour. The point has been raised whether canvassing for votes should be recognized or tabooed. The cultivation of the loftier moral sense which disdains to have recourse to such a proceeding is highly desirable. As a matter of fact, the practice is far from being unknown to Indian University life. Recourse to it now has led to the publication by Mr. C. V. Sundaram Sastriyar, B.A., B.L., Madras, of a very admirable letter, which we regret we have no room to reproduce here. He condemns the system, and recommends the election of candidates who are not in the service of Government, and who are likely to be practical and not merely ornamental members of the Senate. We earnestly hope the electorate will vote for practical men who are never likely to miss a meeting, and whose presence in the Senate will be a guarantee that it contains a new element of strength and independence.

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We have received for publication a lengthy communication entitled "The to-be F. M. U.'s." The letter in question is, we regret to say, far too long for insertion in these pages. We would entreat correspondents to remember that *brevity* is not only "the soul of wit," but also a passport to publication. We shall always be glad to publish good letters on interesting current educational topics relating to India or Burma, but only if due regard is paid to the above indispensable proviso.

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Again our readers will find that they are this month also supplied with 72 pages instead of the usual 64. Even so, much interesting matter, including portions of "Our London Letter," have to be held over to our next issue, for want of space. In fact the permanent enlargement of the journal has now become a matter of necessity, and will have effect from the end of the current year.

TEACHING UNIVERSITIES FOR INDIA.

I. By THE HON. THE REV. WILLIAM MILLER, M.A., LL.D., C.I.E.,
Principal, Madras Christian College

There has been a good deal of talk lately in different parts of India about the need for a "Teaching University." In the mouths of some, this is probably not much more than an unthinking repetition of the discussions that have been going on in London. Our Indian Universities were founded on the model of the London University. The London University, while its success and usefulness up to a certain point are generally admitted, has been pronounced by all whose judgment is of much value to be a very incomplete realization of the ideal of a University. A thorough liberal training needs a good deal that London does not afford. It needs a closer connexion than exists there between the two different functions of educating and of testing education. It needs, in short, in some shape or other, a "Teaching University." If the model has been shown to be defective, it probably appears to many to be an inevitable inference that the institutions which have been modelled on it are equally defective.

I do not think, however, that by any means the whole of what has been said in India is a mere echo of what has been said in London. The talk in India has had to some extent a much less superficial origin. It has arisen partly from comparison between our Indian Universities and those older Universities in which the true ideal is approached more nearly. It has arisen partly from direct observation of the patent, and indeed the admitted, defects of our Indian institutions. The whole question has therefore a distinct claim to be considered by those who are interested in Indian education.

The first step, however, in any discussion that is to be useful appears to me to be a full apprehension of the large extent to which Indian Universities are already "Teaching" Universities. It is very possible that they ought to be more so than they are; but from the admitted deficiencies of their prototype it does not follow that they are equally deficient. The fact is that the London University and the Indian Universities,—or, to avoid needless nicety in the way of qualification and limitation, let me say the University of Madras—have been steadily developing in opposite directions. It was a distinct feature in the original constitution of the Universities of both London and Madras that students should be admitted to examinations only after a properly regulated course of training in some "affiliated" institution. The Charter of the London University contains a long list of the institutions that were thus recog-

306

nized at first, and also contains provision for the list being amended either by addition or by subtraction, as need might arise. The rule was to be that candidates should be admitted to examination only on showing that they had "completed in any of the said Institutions the course of instruction which the said Chancellor, Vice-Chancellor, and Fellows shall from time to time by regulations in that behalf determine." Candidates who could not show that they had been trained in a recognized institution according to a course of instruction determined by the University, might indeed be admitted, but only on such special "conditions as the said Chancellor, Vice-Chancellor, and Fellows, by regulations in that behalf shall from time to time determine." The admission, in fact, of such outside candidates was meant to be entirely exceptional and was probably expected to be purely temporary.

In process of time, however, this original feature of the constitution of the two Universities has been developed and intensified in the one and practically eliminated in the other. In the one case the exception has been made much more exceptional than it was. In the other the exception has become the rule. In Madras, especially since 1877, the links between the University and its Colleges have been steadily strengthened. In London it may be said that no such links now exist. In Madras, the Colleges have been more and more regulated by the University, brought into touch with it, made an organic part of it. In London, the University stands entirely aloof from the institutions whose students it examines. Madras has gone more and more upon the principle of watching and organizing all liberal education and of securing, by such means as it is found possible and expedient to employ, that students are kept for a reasonable time under approved training. London, on the other hand, has gone on the principle of what is sometimes dignified with the title of "free trade in education", asking no questions about how, or when, or where, knowledge has been obtained, trusting to examination alone to secure that the completed product of education is a good one.

I shall raise no question here about which of these two principles is in itself the better. Perhaps each may be good in its own place. It is quite possible that in one set of conditions it may be wise to act upon the one principle and in another set of conditions on the other. But there is no room for doubt as to the facts of the case. There is no room to doubt that to a very considerable extent the University of Madras is already a "Teaching University." Perhaps it ought to become more of this in the future than it is as yet. It is distinctly my own opinion, that it ought to do so. But nothing but harm can result if the discussion starts from the false assumption that it is not a Teaching University at all.

I admit, however, that it is still far from being all that a Teaching University, or a fully developed University, ought to be. Let us ask what steps can be taken towards bringing it nearer to the true ideal.

I do not suppose that any one can possibly wish to see the University of Madras turned into a Teaching University of exactly the same kind as is desired in London, or as has long existed in many countries of Europe. Slavish imitation never is or can be a good thing. Universities, like all other institutions, must be in large measure a natural outgrowth of the conditions and circumstances of the country to which they belong if they are to do that country real good. Those who wish to benefit the country by means of them must study the facts around them for themselves. While taking hints from all quarters, they must work mainly upon a plan which the actual state of affairs in their own country has suggested. And, in the present discussion, I regard it as both an obvious and a primary principle that there is need for such centres of enlightenment as mofussil colleges can alone supply. It may be desirable that the too rapid springing up of small colleges in remote quarters should be checked. A small college class or two tacked on to a high school is not a hopeful means of training even the few members of such classes, and is not unlikely to give false and hurtful ideas to a whole district of what liberal education really is. It may also be desirable that the best training should always be found in Madras, and that a distinct primacy among affiliated institutions should rest with the Colleges of the University town. But for my own part I should not discuss this question with any one—if there be any one—who is short-sighted enough to hold that there ought to be no provincial colleges. Some of these local centres of enlightenment are so plainly doing good work at present, and are so plainly necessary in any possible forecast of the future, that I cannot imagine a scheme being seriously proposed which would result in their being entirely swept away. This puts out of the question all idea of the University of Madras being turned into a reproduction of Oxford or Cambridge with their many Colleges, and still more of its being turned into a reproduction of Edinburgh or Dublin, in which the College and the University are, for practical purposes, the same body.

And yet most of us feel that the University of Madras is less of a real University, more of a mere examining board, than it must be if it is to have the influence which many Universities possess to a fair extent—for the perfect ideal is not attained any where,—in other lands. Can it become more of a real University without committing the fatal mistake of swallowing up all its Colleges, or all of them that are not located in the University town? I think it can:—not by any sudden stroke, but by steadily following the path on which it has already entered. I

think that good may be done by those who are interested in the welfare of Madras, or any other Indian University, pointing out some of the ways in which it may develop in the required direction. I shall suggest just one or two out of the many such ways which have from time to time occurred to me. Perhaps others will suggest other ways. Perhaps some also, by criticizing the views that I express, will help to make these views clearer theoretically and more likely at some future time to be reduced to practice.

The Colleges—so many of them as it is desirable to have at all—must retain their individual life. They ought to be watched and controlled by the University but not to be merged in it, any more than a ship or regiment is merged in the fleet or army to which it belongs. The Admiral sees that each ship is in proper order and fit to do the work for which it was designed, but it is not his part to issue the orders by which its internal economy is regulated. Especially in our days, when even line-of-battle ships are constructed on such different models, all details of management must be in the hands of the ship's own officers and captain. So it must be with the Colleges that make up the University. But the fleet may be in the fullest sense a united body. It may be as truly one in its own way as each individual ship is one. Every seaman may feel that he belongs to the fleet as vividly as he feels that he belongs to his own ship. So there may come to be much closer union than there is as yet between each college and the University.

For instance, a plan might without much difficulty be devised by which the Senatus, or other governing body, of each College might have an influential voice in forming and guiding the policy of the University. At present such bodies are nearly powerless. The very little power they have—and it does not extend beyond the suggestion of texts—they seem scarcely to care to exercise. It is true that some heads of Colleges and Professors in Colleges are also Fellows of the University, but they have been so appointed simply as individuals, not in any way as representing their different Colleges or as authorized to speak in their behalf. What is needed is that the voice of Colleges as such—each with its distinctive aims and character,—should somehow become audible in the counsels of the University. No doubt this might give rise to some difficulty for a time, but much good would result from it in the end. It would show the Colleges to be organic parts of the one corporate body. It would draw their professorial staffs into close relations with each other. It would make students feel that, wherever the College they belong to is located, they are all under the care of the same *Alma Mater*. Of course it is open to discussion

whether the first step towards this can best be taken by the Colleges volunteering to lay their views before the Senate on such questions as from time to time arise, or, on the other hand, by some addition to the constitution of the University which might give to each fully developed College a recognized right of 'interpellation,'—the right, at all events, of being heard in some way before any change is made in University statutes and regulations.

A still easier step in the required direction might be taken by the foundation and utilization of a real University Library. The University possesses a miscellaneous collection of books; but, for all purposes that I know of, they might as well be still on the shelves of their publishers as where they are. And most of them, I fear, would be found to be of little use even if they were made accessible. But it ought not to be impossible for a University containing fifteen First Grade Colleges with their two or three hundred tutors, pundits and professors, —a University which has more than 3,000 graduates and about as many under-graduate students, to establish a central library for the benefit of so large a circle. It is a common complaint that when the degree is obtained study ends. It may be worth consideration whether all has been done that can be done to make further study possible to those who wish to carry it on.

No doubt a project like this will need money—money wherewith to buy books, and money to a still larger amount for the buildings and the staff which will be indispensable if the library is to be widely used. But might not some of the surplus which the University has accumulated be wisely devoted to this purpose, and would not Fellows, and graduates, and professors, and all friends of learning, liberally supplement any efforts which the University as such might make? Whether this be utopian or not; I am certain that the establishment of such a library as the University ought to have,—a library which professors in all Colleges, whether Fellows or not, and graduates wherever resident, might regard as their very own,—a library with such rooms attached to it as might form a place of meeting for all members of the University—would do much, not all at once but in the course of years, to give a greatly needed centre to the University. It would do much towards sending a continuous pulse of life through all the Colleges, and through all connected with the University, whether as teachers or as students. At least it would make the degree in which Madras is already a teaching University much more visible and much more influential.

I shall mention just one thing more. I suppose some of my readers will regard it as my only real contribution to the subject I have brought forward for discussion. This is by no means my own opinion;

for I am certain that either, and still more both, of the two things already mentioned would be a powerful contribution towards the healthy development of the Madras University. There is however a part of the work of teaching—of teaching in its widest and noblest sense—which the University may beneficially undertake, certainly in the future, even if it ought not to take the thing in hand at once, or as soon as the necessary means can be made available.

The Colleges are the foundation of everything. The first and absolutely essential part of a wise educational policy is to improve and strengthen them. It is only in and through their vigorous life that the University can ever do its full work, or spread its benefits so widely as it ought. But their sphere is limited. They can instruct and train up to a certain point; and, with ripened experience and more adequate means, they may hope to do this in the future much better than they have done it hitherto. But they can hardly become the scene of that higher self-training, that independent putting in practice of the lessons learnt at lower stages, to which a proper education in a College always points. Of course the college student stands in many ways on a higher level than the school-boy. Compared with the latter he needs to be left to himself and must learn to work for himself. It is an essential stage in his education that in College he should be more free, should be less directly supervised, more allowed to sink or swim as he himself deserves, than when he was at school. But it is only in a comparative sense that all this is true. The college student still needs—needs in every country, but I fear needs in India even more than elsewhere,—to be watched, and to be induced, and at times to be compelled, to do his duty as a student. There must be no inconsiderable mixture of the tutorial element in the instruction he receives, if his College is to do the best it can for him. The College that does not give its students a pretty large amount of such careful supervision may enable them perhaps to push through examinations but is in danger of sending them out into the world with principles unfixed and character unformed. Now, the amount of knowledge with which this tutorial element, this watchful supervision, may be suitably combined, is fairly well marked among us by the examination for the B.A. degree. That examination supplies at the same time a fair standard of the knowledge which may be regarded as the average stock of those who have received a liberal education. But there is a higher stage; and in that higher stage the University may most advantageously take to itself the direct guidance of such of its alumni as it is wise to send so far forward. This highest stage of all is one which, in the very nature of the case, comparatively few ought at any time to pass through. For most men, when the College

stage is passed, with its regular discipline, its class routine, and its fixed examinations, the duties of active life afford the best means for the confirmation of right principle and the full development of character. But there ought to be a chosen few who do wisely if they seek for fuller knowledge before they take up the duties of the common world; and there ought to be a still choicer few among that few for whom the life-long pursuit of knowledge is the true and the appointed duty. For such as these it is well—and it is well too for the whole community they belong to—that the means of instruction and of a certain amount of guidance should exist somewhere; I do not say the means of training them but the means of enabling them to train themselves.

It is here that the University may wisely step in. Here it may supplement and give the needed centre to all the work of all its Colleges. It may wisely provide all the necessary teaching—or rather all the intellectual impulse and suggestion which ought at this stage to take the place of teaching—after the ordinary degree has been attained. At present no College has the means of doing this. Even if any College were able to do such work, it would be culpable if it wasted its means on its own students only, or on those whom it might draw to itself from other Colleges. For any single College to try to occupy this sphere would, in present circumstances and in any circumstances ever likely to arise, be to destroy the best opportunity there is for the University developing into a true centre of intellectual life, in the first place for its Colleges, and through them for the entire community. All that is done for leading on to higher stages of knowledge men who have already graduated as Bachelors of Arts, ought to be done by the University itself. And the successful passing through these higher stages may well continue to be marked—as in point of theory it is marked in the University of Madras at present—by the bestowal of the M. A. degree. If it become desirable hereafter that an ordinary liberal education should imply either a wider or a more thorough knowledge than is in the meantime implied by it, this will be best secured by changes in the scope or standard of the ordinary, or B.A., degree. It would be a fatal mistake to institute arrangements which would make the higher degree practically indispensable for all who wish to be regarded as educated men. The few whom it is wise to encourage to aim at the loftier mark may be fitly required to place themselves for some considerable time in the hands of the University and to submit themselves intellectually to her guidance.

Of course I do not wish the University ever to open classes for the M. A. degree on the model of those which train for the ordinary degree in the various Colleges at present. Anything of that kind would

defeat the whole plan which I venture to suggest. From the training of those on whom the University has set its ordinary stamp, the tutorial element ought to pass away completely and for ever. But the entire elimination of this element would leave abundant room for almost innumerable helps towards self-training. It would leave room for guidance in the course of study, for practical work in all the natural sciences under the eye of an experienced experimenter, for lectures affording impulse rather than instruction, and for many other things which those who have shared in the life of a well-developed University do not need me to tell them of.

If the University should assume the function I have suggested, it will of course need Professors of its own, distinct from those in any of its Colleges. The professoriate need not be a large one for some generations yet, but it will need from the very outset to be of the highest order in point of character and attainment. There will be needed also not only a first class library, but laboratories and working museums of many kinds. In fact a great array of appliances will be needed which this is not the place to enumerate in detail. When and whence are all these needs to be supplied? Such questions it does not devolve on me to answer here. All I have to say now is that the practical carrying out of such a scheme as this affords the best hope of making the Madras University all that it ought to become, and of securing that its Colleges shall be not mere loosely connected adjuncts, but limbs, organs, living members of itself. Such a scheme will secure the end in view by the way of natural addition and healthy development, not by the way of rash innovation and revolution. When a centre of intellectual life has thus been established in Madras—but not till then—Southern India will have a "Teaching University" of the best kind, and of the exact kind suited to its own wants.

A plan of the sort that I have thus dimly outlined was proposed so long ago as 1869 by a Governor than whom Indian education never had a truer or a wiser friend. It was found to be premature then. I daresay it is premature still. But at least the time for beginning to realize it has drawn nearer, not only because the years have been rolling on, but because fairly good foundations have been laid which did not exist a quarter of a century ago. But whether it is now the time or not for earnest practical effort in the direction indicated, it is certainly time that a right ideal should be getting itself formed in the minds of those whose influence will be most felt when the hour for action comes.

THE RELATION OF THEORY AND PRACTICE IN EDUCATION.

By DR. R. WORMELL, M.A., F. C. P.

From "*The Educational Times*".

Let me indicate the aim of my paper. I intend to show that there is a theory of education which is helpful to practice but almost useless without it; that, reciprocally, the theory is revealed by intelligent practice; in other words, that theory and practice in education constitute a partnership which is indissoluble; that this theory is describable by only one of the ordinary meanings of the term "theory," and that not the commonest; and, finally, that in the present state of our knowledge it is of the utmost importance to acknowledge the dependence of theory on practice.

Now, I have asked myself how a pedantic pedagogue ought to attack such a subject, and have resolved to proceed in the orthodox fashion, and at the outset to refer you to the dictionaries.

Suppose, therefore, that from this point the dictionary is open. There we find that the word "theory" is just such a word as helps and pleases the casuist. It has many significations and shades of meaning.

1. "Theatre" and "theory" both have the same root. They both have fundamentally something to do with lookers-on. "Theory" should mean the true account of a thing given by an observer. But early in its history it came to involve an invidious contrast. The lookers-on were not actors, they were not workers, and they grew to think the actors and workers existed only for their special pleasure.

2. In their second meaning; therefore, theory and practice could not be indulged in by the same person. The Greeks placed them in opposition as denoting mutually inconsistent ideas. Hence they conceived the fallacy of a double system of laws in science: one theoretical, rational, discovered by contemplation applicable to celestial, indestructible objects (the study of this system of laws they considered a noble occupation); the other practical and mechanical, discovered by experience (and applicable to terrestrial and destructible bodies, the pursuit of which they considered was ignoble and vulgar. Physical theories, then, might be but empty dreams at variance with every-day observation.

It is not to be wondered at that such a practical, working people as the English are should have turned the tables on the theorists, and

* Read at a Meeting, College of Preceptors, May 17th, 1893.

learnt to distrust mere theory, according to this its second meaning, as tending to make, not doers, but talkers.

I need not say that it is not this "bookish theorick" which I want to make use of, although I must admit that it is to be found even in education. Have we not educationists who are the on-looking theorists, and educators who are workers; and do not the former frequently cultivate empty and mischievous dreams, and do they not look down on educators as men and women of a lower order—as men and women who perform for their pleasure or amusement? You will find such theorists on School Boards, County Councils, and Chambers of Commerce, posing on platforms, and even occasionally putting themselves in evidence in the Senate. Their "theory" is often but a baseless conjecture about things educational, which very often entirely misses the truth. They are always quite sure they have struck into the right path, and want us to leave the high road and follow their indication along roads which they have never explored; or they want us to cease to build on the foundations which, slowly, laboriously, and painfully, have been prepared in the past centuries, and to build on a foundation as uncertain as the clouds. With theorists of this kind we are not unnaturally impatient; but this experience ought not to lead us to despise theory, in its first meaning, as the result of attempts to see education in its parts and as a whole, and to learn about it all the truth our intellectual vision will gain for us.

3. Thirdly, we come to the modern use of the term in the physical sciences. Here, when we fix on two phenomena that seem to us to be related as cause and effect, but have not been able to observe them with such care or for such a length of time as will make the assigned relationship a certainty, the statement of the proposed connexion is termed a theory. Hence, in physical science, a theory is a highly probable supposition with regard to the sequence of phenomena, which embraces all the circumstances known to attend them.

We test a theory generally by experiment—that is to say, by trial and observation. Sometimes we have to be content with observation only, as with the phenomena afforded by astronomy. We can, however, often produce a given phenomenon at will and so choose our own time and circumstances for tracing out its cause or effect. To produce a phenomenon for this purpose is to make an experiment.

This kind of theory is the nearest match, in pattern, tone, and tint, to what we want. Dependence on observation and experiment characterizes physical science, and it also characterizes the science of education. My purpose is to establish in your minds the dependence on experiment. Some would treat it as they are compelled to treat astronomy, and

simply make it a science of observation. That is an error, for educators can collect or produce conditions and trace the consequences. We can make experiments in teaching. Indeed, until the theory is tested by experiment, it is unreliable and useless.

Coleridge, in his "Table Talk," having shown how theory helps investigations, although it cannot invent or discover, adds: "The only true theories are those of geometry, because in geometry all the premises are true and unalterable." No doubt geometry is far up on the mountain of truth, foremost of the sciences devoted to truth. But the science of education has already begun to scale the same mountain. Its theories are growing to be like the theories of geometry in stability and certainty; yet it differs from them in one important respect which it is part of my main purpose to insist on. The science of geometry may be studied as a purely deductive science—as an educational instrument only—without reference to, or any intended bearing on, an art of any kind. He who masters the proposition, "To bisect a given rectilinear angle," may never need to make a design or draw a plan, and may have no intention of applying the fact in any way. He learns it as an exercise of the faculty of reasoning, according to the principle that faculty grows by exercise.

Now, the science of education has not yet passed the inductive stage. Whatever may be the case ages hence, it cannot now be studied as a means of mental discipline. It is required only for the perfecting of the art of teaching, from which it cannot at present be separated.

Here, you see, I am bringing other words into the argument. Naturally enough, the notions of "theory and practice" have led to an encounter with the two other terms, "science and art." What is the relation between theory and practice, science and art? Everybody knows we associate art with *doing*, science with *knowing*.

Dr. Whewell distinguishes between them thus:—"The principles which art involves, science alone evolves. The truths on which the success of art depends lurk in the artist's mind in an undeveloped state, guiding his hand, stimulating his invention, balancing his judgment, but not appearing in the form of enunciated propositions."

Now, the enunciated propositions or general principles of the science of education constitute the theory of education. The science discovers and treats of the fixed principles which should guide the practice of education, and which, when formulated and set in order, constitute the theory. Practice is the assiduous exercise of the art. The practice of the art of education contains, for eyes that can truly see, the principles which govern its action, and our contention is that we must evolve the

principles of education from observation coupled with the practice of education. Then when we have duly expressed these principles and stereotyped the formulae, we have the theory.

Again, there are two other words which have been made to have more or less of the same relationship as theory and practice, and science and art, namely, knowledge and skill. In ordinary occupations, both knowledge and skill are wanted, but the relative importance of knowledge, though always real, is greater in some occupations than in others. The art of education, like the art of surgery, requires great skill, but this skill in both cases must be directed by a knowledge of the human subject on which the art is exercised. This knowledge cannot make up for want of skill, but skill would be worse than useless without knowledge. When a great surgeon dies, his skill perishes with him, but his knowledge lives on in the possession of his successors. Mr. Quick, in his famous Leeds lectures, dwelt on these points, and said, in other words, what Professor Payne had said before, namely, that in that day teaching was not recognized as one of the occupations where knowledge is needed as well as skill. But even Mr. Quick, in dwelling on this, seemed to distinguish and separate until, for the moment, he made it appear that knowledge was to be sought first and skill afterwards, whereas both grow together. In education they are each nearly useless when separated, and from the day when there is just a little knowledge and just a little skill, they should grow together.

The late Mr. William Ellis, in his "Phenomena of Industrial Life" associates something else with knowledge and skill. This is what he says, in building up his science of economics:—"If nobody had worked in the past, nobody could subsist now: and, if labour were discontinued, the means of subsistence would soon disappear. It appears, therefore, to be indispensable for the well-being of mankind that the ability and disposition to labour should prevail widely. We have a name for those men who labour cheerfully and assiduously—we call them "industrious"; we say they possess industry.

"The cause of the superiority in directing industry which distinguishes the modern European, and which makes his labour so much more productive than that of the savage, is what we call 'knowledge.'

"There is another accompaniment of industry, something so closely united with knowledge as often to appear inseparable from it. In order to be as successful as possible, the industrious man must not only know when and where to direct his labour, but how to apply it.

"To this ability of applying the resources proffered by knowledge in aid of industry, a name also has been given—'skill.'"

Now, if we can follow Mr. Ellis's order and say that the first essential on the part of the educator is industry, I do not care to what extent you give preference, priority, superiority of importance to either of the two other essentials, knowledge and skill: industry is the parent of both knowledge and skill.

Skill is the faculty resulting from the assiduous industrious mixture of theory and practice.

In our professional work, knowledge and skill should grow together, and continue to abide together and to walk abroad hand in hand. It is not the case that knowledge must be sought first and skill afterwards, or *vice versa*. I mean, of course, professional knowledge. I am not speaking of the knowledge of the subject to be taught. An adept in his subject may be a novice in the art of teaching it. But this contention of mine will be still more evident if we examine what is the science or the theory, what the art or the practice.

Here you may lay aside the dictionary.

It must be clear to you that there were some good teachers before there was the trace of any attempt to formulate the principles of their methods.

Their practice developed their methods, and out of the recognition of the methods by them, there grew slowly and gradually the statement of principles. These appeared one here and another there, one by this teacher and another by that, one in one century, another in the next, until at last there was sufficient to admit of generalization.

It was seen that all the substantiated principles were those of the methods of an educator who was not at first recognized.

The child, the most helpless of animals, is never left without education.

While meaner things, whom instinct leads,

Are seldom known to stray,

the heir of all the ages is left to find his way by groping and straying, and returning to start anew when the right path is found.

The infant has no such safeguard as instinct; it has only certain capacities, and certain laws of development; and an educator takes it in charge almost from the first. This educator is always at work, always developing faculty, always leading to the acquisition of knowledge, always securing positive results.

Our observations, therefore, can begin by our investigating the process when the child is pupil and nature the educator.

The results of such observations constitute the natural theory of education, which grew up under the educational reformers of the last three centuries.

I will not trouble you with a list of contributors, but for my purpose I shall mention two remote, Rousseau and Pestalozzi, as I have already mentioned two near, Payne and Quick. Rousseau grasped, as no preceding reformer had grasped, the idea which had been growing for centuries, namely, that in education we must follow nature's methods. He allowed his theory to drift away from practice, and, although the most uncompromising advocate of a sound foundation for the theory of education, he ran his theory wild because he did not check it by experiments. Hence, as some one has said, he became "a voice and nothing else."

Though others had indicated the starting-point of the science, Rousseau was the first to base education entirely on a study of the child to be educated. Rousseau first pointed out as a result of observation the intimate relation that exists between children and the material world around them.

But his separation of theory and practice led him to ignore the fact that nature may be directed and subjugated to our needs. He was somewhat like Rosetti in recent years, who had no taste for a cultivated garden. Rosetti preferred the wildest plot of weeds, and even sowed thistles and briars broadcast, that he might see in his back garden the beauty of unrestrained nature. So with Rousseau. We ask: "How shall we educate a child up to twelve?" Rousseau answers: "Do nothing and let nothing be done."

A very different man was Pestalozzi. He caught Rousseau's notion respecting the foundation of the theory of education, but it was not in his hands a barren idea. He was a worker, a practical philanthropist, who laboured heart and soul to benefit his fellow-creatures. Pestalozzi was a worker, Rousseau was but a vain and insincere writer. Rousseau had done all he wanted with his theory when he had led men to read it, and they read it chiefly because it was an attack on existing customs, and it was the craze of his day to make war against current customs. Pestalozzi, by practice, corrected and perfected that theory so that it conveyed a better and higher conception of education than had ever before been achieved. "Nature," said he, "develops all the human faculties by practice, and their growth depends upon their exercise."

He bade us inquire what are the child's faculties, how they have been developed, to what extent they are still capable of development, and what is the divine intention with regard to them. In his way he firmly established the foundation for a science of education.

This has been developed in our day by two of his most devoted disciples, whose names I have already mentioned, Professor Payne and Mr. R. H. Quick. I never mention or think of these names without

feelings of profound reverence for the men who bore them. I call to mind how, against much discouragement, they preserved their love for education, and with untiring zeal sought to make teachers think more deeply on what they were doing and why they were doing it. Both these men found it difficult to get teachers to admit the possibility of a science of education.

Professor Payne said: "One of the greatest impediments to any attempt to expound the principles of education lay in the unwarrantable assumption, on the part of teachers, that they had nothing to learn on the subject."

Mr. Quick was likewise disheartened for a time by the indifference of teachers to this question.

It was about the date at which Mr. Quick began his lectures that Mr. Robert Lowe said there was no such thing as a science of education, and, still more, there could not be and should not be such a thing, and a professorship of education would be an absurdity.

In combating this inertia and incredulity, both professors, as I have said, seemed to separate the inseparables. But a few years have made a difference in this respect. Now the principles which they taught are so widely accepted that we need not stay to demonstrate their possibility.

It is, perhaps, still true that here and there there are distinguished proficients in the art of teaching who have failed to recognize the correlated science. They are unconscious of the fact that in their practice they obey certain laws, and it is their unconscious obedience to these laws which renders them so proficient.

Imagine yourselves observing one of these experienced and skilled teachers. He finds the memory of his pupils has failed to retain some piece of knowledge, and he sets about helping them. He combines associations, he draws comparisons and contrasts, he requires repetition. Ask him why. He will reply: "To fix the thing in memory." He acts on a principle, and that principle is an element in the theory, the existence of which he hesitates to admit. You see him deal with a case of imperfect attention. His questions and remarks arouse an interest in the subject, and the attention improves at once. He again follows a principle of natural education. Watch him as he encounters a pupil with a difficulty. He helps the pupil to recall some half-forgotten knowledge, to collect and arrange his mental tools, and then he bids him renew his efforts to find the solution. Ask the teacher why he did not solve the problem for the lad out and out. He will answer: "What good would that do him?" He applies the central principle of the theory of teaching, namely, that the pupil must make the knowledge

his own by the exercise of his own powers, that the function of the educator is that of a stimulator, a provider, a director and superintendent of the learner's work, and to that office he is to confine himself. Watch such a proficient in the art of teaching examining the class of an inexperienced assistant. The class fails, and the assistant says, "I thought they knew it, I told them all about it." What reply does he receive? Why, a paraphrase of the law I have quoted—"You have not let them do it for themselves; you cannot learn for them." Therefore I say that, unconsciously, such a proficient, in practice, follows the principles of the theory. What, then, are the advantages of giving these principles a distinct expression? We shall see.

The natural theory of education starts with a few such principles as the following:—

1. Every child is capable of action, and surrounding material objects stimulate it to action.

2. The external stimulants act through the organs of sense.

3. The sensations are the fundamental elements of knowledge.

4. The development of the mind begins with the reception of sensations, and proceeds by the formation of ideas.

5. Natural education is the action and reaction between the external stimulants and the mind's power, causing growth and development.

6. When nature is the educator, the laws of the learner's being govern the educator's action, and determine what he does and what he leaves undone. He ascertains, as it were, from the child himself how to conduct his education.

Now, all this has some meaning for the teacher who can take a little of it at a time and apply it—who only wants it that he may apply it. But without practice it is no knowledge.

Consider the external stimulant, for instance. That which will stimulate one child at one time will not necessarily stimulate another, or even the same child under other surroundings; and practice in education alone can lead to the necessary discrimination which will apply the principle effectively. Then, again, we need not wait until the external stimulants appear naturally; we can produce them, make them, invent them, or check and remove them. The pupil's surroundings may over-stimulate, as was recently the case in the Rugby long races. Hence any of these principles have little meaning and little moment without practice. Immediately the principle is put into words for the student-teacher he needs to make it his own by applying it. Indeed the theory of education generally should be the theory of his own education. Here is the principle, as stated by Professor Payne—

"The learner's ideas must be incorporated with the learner's mind, and become part of his being. Words are the conventional signs, the objective representatives of ideas; and their value to the learner depends on his possession of the ideas they represent. The words without ideas are not knowledge to him."

The notion that education is a process of cultivation further helps us to see how necessary it is that practice should combine with theory. The horticulturalist who has learnt by observation nature's methods, can assist the process of growth and development, and sometimes even control them. So also can the educator. The giving of this assistance is the purpose of education. It is education.

The varied nature and degree of the assistance required, in individual cases, constitute one of the reasons why theory should be studied by means of practice.

Theory states only what appears to be universal.

Practice reveals and deals with individual differences.

Theory, when once you allow it to be separated from practice, would deal with minds as if all were alike.

Men and women are tall or short or neither, blonde or dark or neither, well-favoured or ill-favoured in countenance or neither; yet no two, if we except such a *lusus naturæ* as the Corsican Brothers, are exactly alike, either in appearance or constitution. Similarly no two are exactly alike in mind or temperament.

Practice alone can show how to recognize the conformity in the midst of this diversity, and to meet the demands of the latter while following the laws of the former.

Now, to what parts of our professional work does the theory apply?

You may ask: What about those who have not to teach young children at all, but youths and maidens, young men and young women? Are they to be required to study the development of faculty in little children?

No doubt, in the cases of older and more advanced pupils, the mental processes which lead to mental development are not so evident; they are often masked or hidden, and a more subtle search is required to find and expose them; yet they are to be revealed, and those who have had opportunities of following the growth of many pupils from childhood to maturity, and from maturity upwards, recognize the identity of the principles which are applied, consciously or unconsciously, from within the pupil or from without, at different stages. Such observant teachers will admit the advantages of being able to work with a sure foundation.

What shall we say of the college tutors? At first sight one is not sure we need consider them. They are, as a rule, creatures with large "carrying capacities"—elevators it may be, but not educators. Their business is to communicate their own knowledge. They rarely trouble their heads about the development of faculty, unless it be their own carrying and examination-tapping faculty. Hence, they can do without training, without either theory or practice in teaching. So it might be; and yet what power they might acquire if they would but become teachers as well as tutors! What power is already in the hands of the few who have earnestly and honestly entered our profession and become teachers as well as tutors!

How is it that the education of the older Universities is so valuable for the formation of character and development of faculty? Because it is strictly in conformity with the natural theory I have enunciated. The inimitable environment is the essential element.

Within the last month I found myself for the first time a resident in an Oxford college—a guest for a day or two of the tutor. Would that every teacher could have the same opportunity; then should we all understand this natural theory of education, and believe in the paramount influence of the student's environment. I can assure you that this influence on myself was so persistent that at night I dreamt Oxford had invited me at fifty-four to become an undergraduate, that, with a great but natural thirst, I drank deep at a pure fountain of learning, and was one of the happiest beings in the universe. Delicious but delusive dream! Nevertheless, most assuredly these ancient seats of learning operate by the natural laws which I have enunciated.

Well, then, it seems that no portion of the educational machinery is outside the theory of education. The same laws apply in every part, from base to crown. My own observations tell me that, looking all the way from Kindergarten to University, the highest excellence is found where there is most implicit obedience to the laws of the learner's being.

But to return to my promise to name the advantages of the theory as an addition to practice. The search for principles tends to exclude empirical methods. Connexions between the principles will appear almost as soon as they are put into definite words. A common foundation is ultimately found for them which reduces them to order. Then they begin to eradicate what is unsound in practice. Let me illustrate by reference to Newton's "Laws of Motion." If they were to be applied only in cases where it could be proved by experiment that they were true, there would be little good in enunciating them. Each case thus might be trusted to carry its own law. But when the law has been found to hold good in many experiments, then it may be

applied where it cannot be proved. So the skilled teacher, who acts naturally in many cases, is benefited by the distinct recognition of the principles he applies, because he can then use the same principles where otherwise he would be without a principle. Hence it follows that, when the theory and practice are combined, sequence and co-ordination of parts replace disorder and irregularity, and a settled purpose replaces aimlessness in practice.

And, as I have already pointed out, the skill in teaching which one generation of teachers has attained may perish with the teachers, without making it easier for the next generation to attain a greater skill. But the theory on which the most skilful teachers proceed may be transmitted, and then a higher skill for the next generation becomes easily attainable.

Well, my subject is a large one. It may have been unnecessary with such an audience to enforce the fact that there is a theory for the teacher's guidance; but I think there are reasons why I should now preach the mutual dependence of theory and practice. The bearing of this on the question of the training of teachers will be evident. No substitution of a mere bookish theory, which can be studied along with other subjects at the University, will do away with the necessity of practice, and a training involving practice.

Theorists of the sort I tried to brush aside at the outset may say all sorts of things to hinder us. They have even said that it is not well that young teachers should live together and be trained together in specialist colleges—for this tends to make them a peculiar people, engrossed by one subject and one idea. All we can say to such theorists is: Stand out of our way—don't hinder.

Let me try to be very clear on this point. It is true of all men and women that a narrow exclusiveness, a too circumscribed routine of work, or a too close application to one set of interests, tends to weaken, to paralyze, to degrade. Much seclusion is harmful; while, on the other hand, "as iron sharpeneth iron, so a man sharpeneth the countenance of his friend."

Moreover, it is also true, as Washington Irving has taught us, that every calling has its marks of manner. As these facts apply to all men, we must accept them as applicable to ourselves. But men who would belittle our profession, and the few who are in it but not of it—who are ashamed of it and disown it when they can—exaggerate our oddities, our mannerisms, our professional marks, our narrowness, our priggishness, our imperiousness, our impatience of contradiction. They advise us to hide the robe, never to talk shop—neither to walk in the way of the schoolmaster nor to sit in the seat of the pedagogue.

But as teachers we can look at the other side of this question. The labourer whose hand is hard and horny can at least boast of having toiled. The labourer whose hand is not disfigured by any excrescence cannot have done much work. The schoolmaster who carries no mark of a schoolmaster cannot be worth much as a schoolmaster. He who has done good work amongst us must needs carry the marks.

Dr. Weldon has recently revived a beautiful story, that was told, I think, first in *Chambers's Journal*, of an old Scotch dominie named Adams. This old schoolmaster, as he lay on his death-bed and the shadows closed around him, was heard to whisper: "It is growing dark, boys; you may go." The story is beautiful in several respects; but to my mind its chief beauty has always seemed to lie in its exposition of the true meaning of that professional mark—or, as some choose to think it, professional blemish—namely, in the persistent thought of school and scholar when all else has faded from sight and from memory.

Now, in my opinion, as Paul gloried in his infirmities, as a soldier glories in his scars, so ought the practical teacher to glory in the signs and consequences of his calling. As easily can a regiment which has done noble deeds and carried its standard with unspotted honour through many campaigns against ignorance, barbarism, slavery, and oppression be ashamed of that standard, as any association of genuine teachers can be ashamed of their professional peculiarities. I don't accept the objection which has been urged as an argument against training colleges, nor do I count an absorbing interest in one's profession as a blemish.

In conclusion, let me again quote Mr. Quick. He described a trained teacher as "one who has acquired not only skill in actual teaching, but also knowledge, both theoretical and practical, by making a scientific study of education."

Accepting this definition, I suggest that a perfect system of education is one in which all teachers are well-trained teachers. When this state of things shall be found in England, the science of education will be widely and profoundly studied, the art will conform to the science, and both will be completely mingled in the practice of all educators. Then will arrive a Millennium in regard to education.

At no former epoch has there been so much special inquiry and investigation into the best methods for creating an interest among the pupils in their studies; into the best plans for buildings to secure light and ventilation, and to prevent schoolroom diseases; the best form of school administration by boards elected by the people or otherwise appointed.

EDUCATIONAL BROTH.

By FRÉDÉRIC ALLISON TUPPER.

(From the "Journal of Education," New England.)

The educational pot is now boiling. The faithful teacher is making broth. Along comes the superintendent. He tastes the broth. "It ought to be thicker and slabber," remarks he; "put in more psychology and the broth will be all right."

So in goes more psychology, especially the physiological variety. Ganglia flavour educational broth wonderfully.

Next comes a supervisor: "Your broth is too thick, friend; there are too many ingredients. Take out almost everything but manual training and the broth will be famous."

Next comes a committee-man: "Worthy teacher, your broth is all wrong. Put in some of the old district school that produced so many able men."

The broth continues to boil and bubble.

A travelled parent next appears; "Are you certain that Froebel and Pestalozzi would have made broth just this way?"

And still the pot boils on.

A normal enthusiast puts in her appearance. "You are failing in methods," says she. "Now really, there is only one true way of making broth of this kind. That way we all learn at Westwater. Once master the broth-nature and the syllabus of methods will at once materialize to be cognized immediately by the synthetic unity of apperception. Now the broth-nature—"

At this point the broth begins to boil over, and the normal enthusiast hastens away to get help in subduing broth that acts so abnormally. There are neither rules nor methods ready-made that will cover all abnormal ebullitions.

A distinguished university president next comes upon the scene. "My worthy secondary teacher," he exclaims, "your broth comes to my table in a decidedly uncooked condition. It is evidently underdone. Are you sure that you cook it to the best advantage? It seems to me that if you would cook it a shorter time it would be more palatable and much better done. You evidently let it simmer too long over a slow fire. We cannot digest it at New Camven without an enormous amount of pepsin in the shape of private tutoring to work off entrance conditions. Now in Germany, France, and Switzerland, much better broth, much more easily assimilated, is made by educational cooks in much less time. I beg you stop this everlasting simmering."

Perhaps the teacher may here reply: "All things considered, we are making preparatory broth about as well as you are making University floating island or similar dishes."

But the broth keeps boiling, and the teacher says in his heart: My broth is too thick, too thin, too crude, too miscellaneous, too restricted, too un-American, not foreign enough; it is too methodical; it is too haphazard, and yet it is pretty good broth after all."

PUBLIC OPINION IN EDUCATION.

Mr. Ruskin once said that, in his judgment, what is commonly called Education is little better than a training in impudence. Without doubt the manners of our children leave much to be desired, and we constantly need to be reminded that the school ought to be the place for the formation of right habits as well as a place of instruction. The aim of education, according to Locke is, "Health of Body, Virtue, and Good Breeding," and with us it should be a "habit of good action under a sense of duty." And of good action the obedience, courtesy, and self-control which constitute good manners form no inconsiderable part. It is impossible for any system of training to guarantee them, but the child can be guided and led into those habits without which they are impossible. "Use can almost change the stamp of nature;" the right habits must be formed in childhood, for no virtue comes to man by nature. If good manners have not been acquired in youth, it is extremely difficult to acquire them in after-life, and such as may be subsequently put on have the appearance of ill-fitting clothes.

But when all is said we must depend ultimately upon the teachers: "As is the teacher, so is the school." If the teacher will remember that in every detail of organization and management the moral end should be the end in view, if he will be careful always to present a good model—for it is by imitation that the child begins those habits which are to form the basis of its character—if he realize that we look to him not merely to produce what Mr. Goschen has termed "saleable knowledge," but "the building up of the kingdom of God in the heart of every child," then these minor morals to which we have referred would cause us no anxiety, for the greater includes the less. This may seem a counsel of perfection, but the highest profession—and there is none higher than that of educating children—must have a high ideal. Discipline must depend upon the moral authority of the teacher, and in exercising his authority his commands must have no taint of personal

feeling or convenience, but be entirely dependent on the moral purpose of his profession; as, for instance, in the words of Herbart, "we must never censure so as to cause a boy to lose his self-respect."

It would, however, be unfair to overlook the fact that want of courtesy and reverence is largely due to the spirit of the age. Freedom to develop as one likes is destructive of that reverence which has been called the alpha and omega of education, and without which we may look in vain for gentle manners. "Obedience," after all, as Carlyle said, "is our universal duty and destiny, wherein those who will not bend must break." And the task of the teachers will be enormously facilitated when men have come again to realize that "true liberty inscribes upon its shield the knightly motto, 'Ich dien.'" It would be well alike for teacher and scholar if upon the walls of every school these words were found, and those of Lacordaire, "Write above the word 'liberty,' 'obedience;' above 'equality,' 'hierarchy;' above 'fraternity,' 'veneration;' above the august symbol of rights, the divine symbol of duty."—*The School Guardian*.

INDIAN GOVERNMENT SCHOLARSHIPS.

The following rules for Indian Government Scholars in England, as amended by Secretary of State in Council on the 11th July 1893, are published for information:—

1. Every scholar shall, on reaching England, at once present himself at the India Office, and report his arrival in writing.
2. Every scholar shall, without any unnecessary delay, inform the Secretary of State to which University he intends to proceed, and shall at once take steps to enter himself at the College he has selected.
3. Every scholar shall, within four weeks of reaching England, submit for the approval of the Secretary of State a statement showing the general course of study he proposes to follow; and the course approved shall not be changed without the sanction of the Secretary of State.
4. Every scholar shall, at the end of the each term of residence at a University, submit to the Secretary of State a certificate from the proper College or University authority, showing that his residence, conduct and progress in study have been satisfactory during the term.
5. Every scholar shall at all times obey such instructions as he may receive from the Secretary of State.
6. Subject to a due compliance with the above conditions, the allowance at a rate of £200 a year for three years, will be paid quarterly, in advance, by the India Office, commencing from the date of the scholar's

reporting his arrival in England, but this amount shall be reduced by the amount of any other sum which may become payable to him out of the revenues of India in respect of residence at a University during the same period or any part of it.

7. Every scholar will forfeit his scholarship who, not being disabled by illness or any other cause which the Secretary of State may deem sufficient, fails to complete a residence of three years in England according to the terms and conditions approved by the Secretary of State under rule 3, or who is guilty of misconduct or disregard of the orders of the Secretary of State. If a scholarship is forfeited, the scholar will lose his claim to a free return passage to India, and will further become liable to refund the cost of his free passage to England.

8. The scholars will be under the special supervision and charge of the political Aide-de-Camp to the Secretary of State, through whom the necessary orders will be given, and to whom all reports and other communications respecting them should be sent.

INDIAN STUDENTS IN ENGLAND.

(From "The Indian Magazine and Review.")

In the Class List of the Final Honour School of Jurisprudence at the University of Oxford, J. J. Platel, Government of India Scholar, and R. K. Sorabji, both of Balliol College, were placed in the Second Class.

In the School of Modern History at the University of Oxford, Syed H. Bilgrami passed in Class III.

N. M. C. Captain (St. John's College) passed in the Law Tripos at Cambridge, Part I., Class III.

Mrs. Kadambini Ganguli, of Calcutta, has passed the Final Examination of the Royal Colleges of Physicians and Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, and has thus obtained a British Diploma.

Miss Van Cuylenberg of Ceylon has passed the Matriculation Examination of the University of London in the First Class, and Jotindra Nath Ray in the Second Class.

In the Final Examination of the Indian Civil Service Selected Candidates of 1891, Satyendra Nath Palit stood 5th with 2,255 marks; Birendra Chandra Sen, 12th, with 2,138 marks, the latter obtaining two Prizes (Sanskrit and Bengali) of £40 each.

In the Preliminary Scientific (M.B.) Examination of the London University, the following Honours Candidates were recommended for a Pass: Miss Susila Anita Banerji; Bhupati Nath Das, University Col-

lege and Hughli College, Bengal; Bomanji N. Mullan, Grant College, Bombay, and Univ. Tutorial College; and Shaik Abdur Ruzzak, Guy's Hospital.

The first name in the list of successful Candidates at the Competitive Examination, held on June 27th, for admission to the Royal Military Academy, Woolwich, is that of Percy H. Ezekhiel, who obtained 11,353 marks (the second candidate obtaining only 9,296 marks). He comes from the Bombay Presidency, and is of Jewish origin. He was distinguished for study as a boy, and by about twelve had passed all the examinations required for the B.A. Degree of the Bombay University.

At the close of the special day of the Royal Engineering College, Cooper's Hill, July 20th, the following were among the results declared: Forestry (third year), G. C. Medivalla stood 9th, and K. C. Amin, 14th. Engineering (second year), M. R. Kharegat stood 8th, and R. C. Sen, 26th. Engineering (first year), S. W. Dassenaik (Ceylon Government Scholar) stood 1st; G. P. Roy, 14th; and F. G. Mooraj, 20th. Sir Alfred Lyall presided, and distributed the prizes. S. W. Dassenaik won the Foundation Scholarship and three prizes (Chemistry, Geology, and Physics); G. C. Medivalla and K. C. Amin were reported qualified for the monthly salary of Rs. 350, but as they hold Scholarships from Baroda, their positions will be determined by the Government of that State.

In the University of Edinburgh, B. L. Chowdhari has obtained the B.Sc. Degree in the Department of Natural Science; and Ahmed Mirza has passed B.Sc., in the Department of Sanitary Science. N. C. Das and D. N. Chatterji have obtained the M.B., C.M. Degree.

Mr. K. A. Ghaswalla, a Parsee Law Student from Bombay, has received the Honorary Testimonial of the Royal Humane Society for having saved a girl of ten years old from drowning.

Book learning does not make five per cent of that mass of common sense that "runs" the world, transacts its business, secures its progress, trebles its power over nature, works out in the long-run a rough average justice, wears away the world's restraints, and lifts off its burdens. The ideal Yankee who "has more brains in his hand than others have in their skulls," is not a scholar; and two-thirds of the inventions that enable France to double the world's sunshine and that make Old and New England the workshops of the world, did not come from colleges or from minds trained in the schools of science.—*Wendell Phillips*.

A NOTE ON OPTICS.

There is a certain point in Optics, in connexion with the formulæ for finding the focus of a pencil after reflexion or refraction, which does not seem to be explained in any book and which is a source of difficulty in the matter of signs.

For reflexion and refraction at plane and spherical surfaces, the incidence being supposed direct except in the case of reflexion at a plane surface, the formulæ are (1) $v=u$ (2) $v=\mu u$ (3) $\frac{1}{v} + \frac{1}{u} = \frac{2}{r}$ and (4) $\frac{\mu}{v} - 1 = \frac{\mu-1}{r}$, in which the distances u , v and r are measured from the reflecting or refracting surface. It is a well-known fact that, with the usual convention as to positive and negative lines, these formulæ are perfectly general and include every possible case; that they may be made to apply to convergent as well as to divergent pencils by giving the proper sign to u in each case, that the side on which the final focus lies will be indicated by the sign that v has, and that the last two formulæ relate to both concave and convex surfaces, suitable signs being taken for r . It is immaterial, of course, which is supposed to be the positive direction, though, as in other mathematical subjects, lines measured to the right are generally said to be positive.

All this is clear enough; but, while some writers are content with these remarks on the formulæ, others add that it is convenient to suppose that light comes from the right, without explaining wherein the convenience consists; and others again lay down an imperative rule that lines should be considered positive when measured from the surface in a direction contrary to that of the incident pencil, no reason being assigned for this restriction. It is the propriety of such an additional statement that we propose to examine.

A little consideration of the formulæ given above will shew that, from whichever side light may travel, we are, independently of this circumstance, free to choose the positive direction for lines according to our pleasure. If the formulæ have been established on the supposition that light comes from the right, it may be shewn, by a similar process, that they are also true when the pencil is incident from the other side. This method may be avoided, in the case of refraction, by the use of the fact that a ray is reversible; thus $\frac{\mu}{v} - \frac{1}{u} = \frac{\mu-1}{r}$ becomes

$\frac{1}{u} - \frac{1}{v} = \frac{\mu-1}{r}$. But there is really no necessity for any extra work, for,

in all cases, if we place ourselves *behind* the figure, light would then

come from our left, while the distances u , v and r all change in sign. Now, the formulæ continue to be true when the signs of these quantities are all changed, which shews that the direction from which light comes is of no consequence whatever. Such being the case, the restriction which makes the positive direction for lines depend upon the side from which the pencil proceeds appears to be unnecessary and is certainly inconvenient when light, being reflected repeatedly, is thrown back from side to side, for, in such a case, the same line will have to be considered both positive and negative alternately, which will create confusion.

We have been confining our attention to four formulæ, though all that has been said will be equally true of $\frac{1}{p} + \frac{1}{q} = \frac{2}{r}$ and $\frac{\mu}{p} - \frac{1}{q} = \frac{\mu-1}{r}$, formulæ for reflexion and refraction at a spherical surface, in which the distances are measured from the centre of the surface. Let us however, consider the formula $\frac{1}{v} - \frac{1}{u} = (\mu-1) \left(\frac{1}{r} - \frac{1}{s} \right)$ for refraction through a lens. In obtaining this it is assumed that light first passes through the surface whose radius is r ; if, however, the pencil be incident from the opposite side, the formula would be $\frac{1}{v} - \frac{1}{u} = (\mu-1) \left(\frac{1}{s} - \frac{1}{r} \right)$; should we also turn the lens round that light may first fall on the same surface as before, r and s change their signs. Therefore, if we use $\frac{1}{f}$ on the right side, f being the focal length of the lens, its sign will depend upon how the pencil proceeds. When positive lines are measured to the right and light comes from the right, the focal length of a concave lens is known to be positive and that of a convex lens negative, μ being greater than unity; but when the pencil is incident from the opposite side, the focal length of either lens must be changed in sign. This is directly obvious for, in the formula $\frac{1}{v} - \frac{1}{u} = \frac{1}{f}$, if we look at the figure from behind, v and u both change their signs, light coming from the other side, and therefore f must also be changed in sign, the same remark applying to the focal length of a mirror also.

We thus arrive at this conclusion; if there be no focal length used in a formula, we need not attend to the direction from which light comes; but where a focal length occurs we should measure positive lines against the light, or, what is more convenient, always measuring positive lines to the right, we should take the focal length of a lens or mirror to be positive when it is concave and negative when convex, only if light proceeds from the right, changing its sign when a pencil falls from the left.

T. R. VENKATASWAMI NAYUDU.

ON DETERMINING THE DAY OF THE WEEK FOR ANY DATE.

In our May number we first published a paper dealing with this subject. We are indebted to *Nature* for the following rule on the same subject from the pen of Mr. C. Braun,—a rule so very simple that it is sure to commend itself to the general public.

Let A = number of given year;

B = number of the day in the year;

C = number of leap years from A.D. 1 to the beginning of the year, that is, $(A - 1) \div 4$, neglecting the remainder.

Add these numbers together, and from the total subtract D = the number of secular years which were not leap years (100, 200, 300, 500, &c.); divide the sum by 7; and the remainder will be the day of the week.

Example: June 18, 1815.

$$1815 + 169 + 453 - 14 = 2423.$$

$2423 \div 7$ gives the remainder 1, showing that the day is Sunday.

This holds for any century according to the Gregorian Calendar. For the Julian reckoning the rule is the same, only omit the number D, and write 2 in its place.

Example: Oct. 14, 1066.

$$1066 + 287 + 266 - 2 = 1617.$$

$1617 \div 7$ gives the remainder 0 (or 7), showing that the day is Saturday.

ONLY TO-DAY:

Yesterday now is a part of forever,

Bound up in a sheaf, which God holds tight,

With glad days and sad days and bad days, which never

Shall visit us more with their bloom and their blight

Their fullness of sunshine or sorrowful night.

Let them go, since we cannot relieve them,

Cannot undo and cannot atone;

God in his mercy forgive, receive them!

Only the new days are our own.

To-day is ours, and to-day alone.

—Susan Coolidge.

INDIAN NOTES.

Dr. Duncan left for Europe in the last week of September.

Mr. Monro enters upon his duties in Madras early in October.

There are 214 ladies employed as teachers in Calcutta.

The London University Matriculation Examination and Intermediate Examination in Laws will be held in Madras next January.

The Madras Christian College Day Committee decided at its last meeting to celebrate the Day this year on Friday the 29th December.

Manisha Tagore and Sukumari Ray, both Bengali girls, have passed in Honours the recent Senior Examination in Music held at Trifity College, London.

One of the Burmese Princes commonly called Pyinmana Prince is studying at the Dehra Doon Forest School, with a view to qualifying for the Indian Forest Department.

The winter session of 1893-94 of the Madras Medical College, commenced on Monday, 2nd instant. Applications for new entrances should be made within a fortnight of that date.

Standard English works on History, Political Economy, Science, and other subjects, are being translated into Urdu, to be adopted as school text-books in the State of Baroda.

Mr. V. T. Seshadria Chariyar, B. A., Acting First Assistant to the Director of Public Instruction, Madras, is in charge of the office until the arrival of Mr. Monro from the Central Provinces.

Mr. C. H. Tawney, M. A., C. I. E., late of the Bengal Educational Department, has just been appointed to a post long vacant—that of Librarian at the India Office, St. James's Park, London.

The Doveton College, Madras, has under its energetic Principal, the Rev. E. T. Davies, M. A., followed the good example set long ago by the Trustees of Pachaiyappa's Charities, in starting commercial classes.

A meeting of the inhabitants of Shimoga was held in the Government College of that town on the 17th ultimo, with a view to concerting measures for starting an industrial school in the town. Over Rs. 500 were subscribed on the spot.

The late Babu E. C. Banerji, who was so long connected with the Hughli College, and who did such valuable work as a teacher and writer, was the first Bengali promoted to the higher grade of the Education Department.

Most of the Local Governments have now sent in to the Government of India their opinions on the Simultaneous Examination Question; and the official despatch will very soon be forwarded to the Secretary of State.

Travancore deserves high credit for the progress it is making with regard to female education, and so do Mysore and Baroda; but the percentage of girls under instruction in Travancore to the total population of school-going-age is 6 as against 2.9 in each of the other two States.

We learn from *The Telugu Harp* that the sites recently acquired for the improvement of the Maharajah's College and its grounds at Vizianagaram are being rapidly levelled and fenced in. When the new buildings are erected and the grounds laid out, the College will be one of the most conspicuous and attractive features of the town.

The Travancore Government has applied to the Secretary of State for India, through the Government of Madras, for the services of a Cambridge Graduate as Professor of Chemistry at the Maharajah's College, Trivandrum. Of the two European Professors now on the staff, one is a graduate of Edinburgh and the other of Oxford.

"The time is coming," says *Native Opinion*, "when it will be no longer possible to 'run' Christianity among the Hindus under the cover of secular education. That plan has failed everywhere; no Christian educational institutions dare make 'converts' nowadays; as a matter of fact the secular educational weapon is now being turned against those who first drew it."

Advocates, Vakils and Attorneys of the High Court of Madras, gentlemen of the Civil Service of not less than seven years' standing, and Subordinate Judges, who may be desirous of being appointed Exami-

ners for the Pleaders Examination to be held in Madras next January and February are requested to forward their applications to the Secretary on or before the 10th instant.

Government has cut down as low as two the number of military students at the Madras College of Engineering, and has decided to entirely abolish the entertainment of this class of students from 1894, as there is no longer any difficulty in obtaining the required number of duly-qualified natives of the country educated at their own expense for the Public Works Department.

The protest submitted to the Syndicate of the University of Calcutta by the large and representative meeting of heads of Colleges and Schools held at the Albert Hall, adverted to by us in our July number, has not been without its effect. When the new affiliation rules came up for consideration before the Senate, they were referred for revision to a Sub-Committee, their operation being meanwhile suspended.

The Government of India has sanctioned the scheme submitted by Mr. J. van Someren Pope, M.A., Director of Public Instruction, Burma, for opening a School of Engineering to train students for the Upper and Lower Subordinate service of the D. P. W., Burma. As the scheme is intended to encourage and develop local talent in a new direction, the school will be open only to Burmans and Indo-Burmans.

Three English ladies have recently settled in Bangkok, the capital of the now somewhat troubled kingdom of Siam. A school has been opened by them for the education of the princesses and young ladies of rank, and it is carried on with the aid of native interpreters. Miss Blanche Smith, who is at the head of the school, was formerly an assistant mistress in the Manchester High School for Girls.

There is provision in the Teachers' College, Madras, for the admission, in January 1894, of 23 B.As., 18 F.As. and 5 Matriculates. Applications for Scholarships should reach the Principal not later than the 31st instant. For further particulars regarding the admission, &c., candidates should refer to Section VI of the Madras Educational Rules, which are published and sold at the Government Press, Madras, at 3 annas per copy.

The new Professorship of Persian, Hindustani, and Gujarati, in the University of Berlin, has just been filled up by the appointment of Mr. Ardasir Muncherji Wacha, B.A., a young Parsee graduate of the Bombay University. Mr. Manickshaw Cowasjee Bamjee, another Parsee graduate, has just been appointed Assistant Teacher of Chemistry at Harvard University. He had left the Poona College of Science to continue his studies in America.

The first monthly meeting of the Madras Association of Women Teachers under its new President, Miss Keely, was held at the Presidency Training School for Mistresses on 9th ultimo and was a decided success. Miss Stephen gave a lecture on the Kindergarten system, illustrated by a number of the school children going through four Kindergarten songs under the supervision of the Acting Superintendent, Miss Bernard.

The subject prescribed for the next essay for the Homejee Cursetjee Dady Prize by the University of Bombay is "The Influence and Effect of the Study of Science on the Spread of Western Civilization in India." The prize consists of books to the value of Rs. 200. Essays should reach the Registrar not later than the fourth Monday in June 1894. The competition is restricted to candidates of not more than six years standing from the date of their Matriculation.

According to the *Gujrati*, H. H. the Gaikwar of Baroda has introduced compulsory education in his State. The educational course will consist of primary education in the vernaculars, of a character which would make the boys and girls moral and useful members of society. Compulsory education will, it adds, be given to boys from seven to twelve years of age, the period in the case of girls being limited from seven to ten years.

The Poona Municipality can claim the credit of having instituted an excellent new departure in connexion with education. It has hit upon the happy idea, now a reality, of maintaining a technical school with a workshop attached, for imparting instruction to students within the limits of the Municipality in carpentry, blacksmith's work, turning, and many other things likely to be of use to them in real life. It would be well if this example were generally followed all over the country.

Principals and Head Masters of Training Schools connected with the Madras Educational Department are informed with reference to the note at the foot of the form of application for the Written Examination.

for Teachers' Certificates, that the Director of Public Instruction has been pleased to rule that Normal students who complete their two terms in December next, may be admitted to the examination to be held in November as 'Trained.' This examination will be considered to be the examination at the end of the second term.

The new Vice-Chancellor of the University of Bombay is Dr. R. P. Bhandarkar, PH. D., C.I.E., late Professor of Oriental Languages in the Deccan College. The appointment to this high honour of a distinguished veteran native educationist, so universally esteemed, has given very general satisfaction. We believe that Dr. Bhandarkar's wide culture and ripe experience as Professor and Syndic are likely to go a long way, now that he has withdrawn from all absorbing 'professional pursuits to "the still and quiet air of delightful studies," towards making him an ideal Vice-Chancellor of an Indian University.

A noteworthy change is to come into effect in the Education Department, Burma, from March 1895. From that date, the seventh Standard Examination will be conducted through the medium of the Vernacular. Every paper, except the two in English, will be set and answered in the pupil's vernacular, be it English, Burmese, Karen, Tamil, Telugu, Bengali or Urdu. It is hoped that the result will be that English, as a language, will be better taught and learnt, while History, Geography, Euclid, Algebra and Arithmetic, will be better learnt through the vernacular of the pupil. The divergent character of the practice at present prevailing in different parts of India was pointed out in our July number. It will be interesting to watch the working of the new scheme in Burma.

The fact that *The Merchant of Venice* is one of the texts prescribed for this year's First Examination in Arts at the Madras University may be held to account for the number of dramatic representations with which this particular play has recently been honoured in the Madras Presidency. The first of these was a great success, and was held at Kumbakonam College. The S. P. G. College, Trichinopoly, is now going to give a similar performance. The Ceded Districts Students' Union gave a rehearsal of the same play on 30th ultimo in Pachaiyappa's Hall, Madras. The best representation of the play in Madras was that recently given by the students of the Church of Scotland Mission College in the Victoria Public Hall, the success of which was largely due to the exertions of Mr. Paterson, Principal of the College.

The annual meeting of the Senate of the Madras University was held on Thursday August 31st. The following gentlemen were elected Presidents of the various Faculties:—*Arts*, The Hon. The Rev. W. Miller, M.A., LL.D., C.I.E.; *Law*, The Hon. Sir T. Muttuswami Aiyar, B.L., K.C.I.E.; *Medicine*, Surgeon-Major-General W. F. de Fabeck, M.D.; *Engineering*, Major H. D. Love, R.E. Then followed the election of the new Syndicate. Five Syndics had to be elected for Arts, and one for each of the other Faculties. The Hon. The Rev. W. Miller; Rai Bahadur P. Ranganatha Mudaliyar, M.A.; Mr. G.H. Stuart, M.A.; Mr. J. Grose, M.A., C.S., and Mr. C. Michie Smith, B. Sc., were elected in Arts; The Hon. Sir T. Muttuswami Aiyar, in Law; Brigade-Surgeon-Lieut.-Col. W. Price, M.D., in Medicine; and Major H. D. Love, in Engineering.

The Madras Director in his review of the Annual Report on the working of St. Joseph's College, Trichinopoly, for the year 1892-93, notes with pleasure that the museum is growing in size and value. As in every other College in the Presidency, so here too there has been a falling off in strength owing to the havoc wrought at the last Matriculation. The B. A. results were good on the whole; the F. A. and Matriculation Results, not quite so good. Fees and Government grants met about 47 per cent. of the total cost of the College department. It is noteworthy that the district of Tanjore, which contains one Second Grade and two First Grade Colleges, supplied the majority of the College Students. The Director congratulates the Manager, the Rector, and the Staff on the successful administration of this large and important institution during the year.

The tenth anniversary of St. Anthony's High School and Branch School, Negapatam, was held on the 13th ultimo, the Right Rev. H. J. Reed da Silva, D. D., Bishop of Mylapore, presiding. The attendance was very large, including many of the leading gentlemen of the town, official and non-official. His Lordship was presented with an Address of Welcome on his first visit to the school after the recent execution of the Concordat of 1886. The annual Report was read by the Headmaster Mr. A. C. M. Appaswami Pillai, B.A. It was followed by the performance of the scene of Hubert and Arthur from *King John*. The Right Rev. the Chairman, having distributed the prizes, delivered an instructive address, in the course of which he promised to see the High School provided shortly with a suitable building. By the kind permission of Colonel C. E. Creighton, the S. I. R. Volunteer band was in attendance and played musical selections.

Great credit is due to our American friends for instituting "The Ramabai Association." The object of the Association is to assist Pandita Ramabai's Home for Widows, which is now in a house built for the purpose at Poona. The American Association held its fifth annual meeting last March at Boston, U. S. A., under the presidency of the Rev. E. C. Hale. The Report stated that 74 Ramabai circles were in existence, 59 of which are connected with the Boston Central Society. These circles pledge themselves to give a certain amount of support to the Home for ten years, and during the year reported on, the receipts had been 9,268 dollars. The *Sharada Sadan*, by which name Pandita Ramabai's Institution at Poona is known, opened with two pupils, and in four years the number has increased to 49, "all high-caste, and 38 among them child-widows." The increased numbers necessitate a large addition to the building, and the Americans are exerting themselves to obtain the sum needed for the purpose. The new Home at Poona was opened on July 16th, 1892.

* *

A great Hindu has passed away. We regret to have to record the death of the Hon. Mr. Justice Telang, M.A., LL.B., C.I.E., Vice-Chancellor of the University of Bombay. In him India has lost one of her greatest, brightest, and noblest sons, if not the foremost of them all. His career was one of extraordinary brilliancy. He took his M. A. Degree at the unprecedentedly early age of 19, and since 1889 has been a Judge of the High Court of Bombay. He had won renown as a Sanskrit scholar, and was eminent as a scholar and author in Marathi, while his command of the English language excited the admiration even of Englishman. At the time of his death he was engaged on "The Muhrattas" a History of the Deccan to the Fall of the Peishwa—one of the volumes in the new "Epochs of Indian History." He died at the early age of 43, honoured by all men as a scholar, advocate, reformer and judge. A Resolution from His Excellency the Governor in Council has been communicated to the family of the deceased expressing sympathy with them in their bereavement and a sense of the loss which the public service has sustained.

* *

The new Law College which is to be built to the West of the High Court, Madras, is estimated to cost Rs. 3,41,360. Its erection necessitates the removal to the other side of the road of the existing Police Station and cattle-pound, which stand at the corner of the road opposite Popham's Broadway. The entrance gate to the College will be made on the site thus vacated. In style the building will be very similar to that of the new High Court. The entrance, over which a

tower will be built, will lead into a courtyard, at the further end of which will be the main door of the building, which is designed in the form of a pentagon. On the upper floor will be three large lecture halls and rooms for the Principal and Professors. Below, accommodation will be provided for some six class rooms of various sizes, library and office. There will likewise be two common rooms for students, and the building is designed to meet the requirements of some five hundred students. This estimate cannot be regarded as excessive seeing that the number of students on the rolls of the Law College is at present over five hundred, the number having nearly doubled within the last two years, owing partly to the fact that the College now instructs candidates for the First Grade Pledership Examination of the High Court. The estimate is sanctioned "for early execution," and the preliminary work has been going on for some little time.

* *

In reviewing the Report on the working of Rajahmundry College during 1892-93, the Madras Director notes that the strength fell from 142 to 104, the lowest figure since 1886-87, the year 1890-91 excepted. The decline was confined to the F.A. classes. The attendance was composed of 78 Brahmans, 22 non-Brahman Hindus and four Muham-madans. It is matter for much regret that the College is so poorly attended, considering that it is the only Government First-grade College in the Northern Circars and is provided with a good staff. This poor attendance is matter for regret not only on its own account and in view of the large expenditure incurred by Government on the upkeep of the College, but also as indicative of the backward condition of secondary education throughout the Northern Circars. It is hoped that the measures which the Director, after consultation with Mr. Metcalfe, has recently submitted to Government, will check this backward movement and bring about a healthy activity. The majority of the students were natives of the Godavari District. Kistna supplied only five students, so that the raising of the Noble College, Masulipatam, to the status of a First-grade College, is not likely to affect the numerical strength of this College prejudicially. The tutorial system which has been in force and has so successfully worked in the Kumbakonam College might be tried in this College also. The Director remarks in conclusion that the generally efficient condition of the College is creditable to Mr. Metcalfe and his staff.

* *

The Madras Director complains in his review of the report on education in the Coimbatore district for 1891-92 that the report did not reach him till early in the present year. It shows that, including Colleges,

public institutions of all classes advanced in number and attendance from 831 and 23,217 to 848 and 23,741 respectively. The increase in public schools was confined mainly to schools of the primary grade, particularly lower primary. Only 16.2 per cent. of the males of school-going age were actually at school, which was much below the average for the Presidency, viz. 22.5 per cent. There is therefore much to be done before primary education can be said to have been even fairly provided for, and no pains should be spared in improving the number of schools and scholars, especially in the backward taluks of the District. The Catholic High School, Coimbatore, was raised to the status of a College during the year, and is now known as St. Michael's College. Secondary education in the District was on the whole in an unsatisfactory condition. The training school at Erode was abolished on 1st January 1892 and the Board Training School, Coimbatore, was taken over by Government. Three Sessional schools only were worked during the year. No account has been furnished of schools mainly or specially intended for Muhammadans or Paraiyas. It is essential that Board Salary-Results Schools should be opened in large numbers for the special benefit of these backward classes. More schools should be started under the management of Local Boards. Of Teachers' Associations there were none. These institutions owe their existence mainly to the interest taken in them by the subordinate Inspecting officers.

We gather from the "Report on the Operations of the Punjab Association for the year 1892," published in the July number of *The Punjab Magazine*, that the main work of the Association is the furtherance of female education. This object is attained by maintaining an efficient Central School teaching up to the Middle School Standard, together with nine branches in the city of Lahore, which act as feeders to the central institution, and by keeping, through the agency of *The Punjab Magazine*, the educated public of the province acquainted with what is being done in the way of educating women throughout India. The promotion of social reform is the second, and of friendly relations between rulers and ruled the third, object of the Association. The total number of scholars in the Victoria Girls' School on the 31st of December 1892 was 209. Of these, 132 were Hindus, 48 Muhammadans, 23 Sikhs and 6 Christians. Of these, 1 was in the Normal Class, 24 in the Middle, 92 in the Primary, and 67 in the Infant Department. The Branch schools contained 334 scholars, of whom 104 were in the Primary and 230 in the Infant Department. Of these, 183 were Hindus, 135 Mahomedans and 16 Sikhs. The Branch schools teach up to the Lower Primary Standard only. Girls anxious to pursue their studies are, after passing the

Lower Primary Standard Examination, transferred to the Central School which is located in the city. The annual inspection of the school and its branches was held by Miss Francis, the Government Inspectress of Schools, in July 1892. Eleven out of 14 candidates passed the Upper Primary Standard, 22 out of 30 the Lower Primary Standard, and 80 out of 96 passed the Infant Standard. Miss Francis reports that the 'school has a very good record to show this year, both as to numbers and examination results. The Branch schools are doing well: it is satisfactory that three of them are now taught by girls who have been educated in the Victoria School, and passed the Middle, and are doing remarkably well.' English is taught as an optional subject in the Victoria School. Knowing that the paucity of duly trained teachers in the Province is a formidable obstacle in the way of female education, the Association keeps a normal class in the Central School. The teaching of this class is supervised by Miss Francis, who also gives lessons in the art of teaching. The Branch schools constantly need teachers, and before this Normal class was opened there was great difficulty in finding them. That this difficulty has not yet been surmounted, is clearly shown by the report of Miss M. Bose, the Lady Superintendent of the Victoria School. At the close of the year of report Sir Denis Fitzpatrick, B.A., C.S., C.I.E., K.C.S.I., succeeded Sir James Broadwood Lyall, as President of the Association. We congratulate the Association on the success of the good work it is doing and has done, as evidenced by the satisfactory increase of the numbers on the rolls of its girls' schools, notwithstanding that certain inducements formerly held out had to be withdrawn.

LITERARY NOTES.

Books, says Emerson, are the best things; well used; abused, among the worst.

A series of interesting extracts from the Report of Pandita Ramabai on the working of her *Sharada Sadan*, or Widow's Home, at Poona, are to be found in the September number of *The Indian Magazine and Review*.

M. Guy de Maupassant, the celebrated French realistic novelist, who had been for some time past hopelessly insane, has recently passed away. He was just forty, and has left behind him some thirty volumes of fiction, mostly short stories, in which he excelled.

Carlyle's Lectures on the History of European Literature and Culture, lately discovered in Bombay, edited by Mr. R. P. Karkaria of St. Saviour's College, has been prescribed as a text-book in English Literature by the University of Bombay for the M. A. Examination of 1895.—*Indian Magazine and Review*.

Miss Braddon, the famous novelist, is said to have at last fulfilled what was the dream of Scott's ambition, having realized £100,000 by the works of her pen. She was born in 1837, and first made her name by the publication of "Lady Audley's Secret." She formerly edited *Belgravia*, and is married to Mr. John Maxwell, the publisher.

The Indian Social Reformer, a weekly newspaper published in Madras every Saturday evening, entered last month upon the fourth year of its existence. The great work upon which it is engaged deserves the hearty support of all good men, and we hope the paper will meet with the success which it deserves so highly.

"The Indian Manual of Hygiene" is the title of a work shortly to appear in two volumes of about 400 pages each, illustrated with about 40 plates. The new book, based upon Dr. King's *Manual of Hygiene*, is in the hands of Surgeon-Captain A. E. Grant, M.B., C.M., Professor of Hygiene at the Madras Medical College, and is to be published by Messrs. Higginbotham and Co., Madras.

Among the new books published during the last quarter by Messrs. Longmans, Green and Co., we notice (1) *A Short History of Ireland* from the Earliest Times to 1608, by P. W. Joyce, LL.D., M.R.I.A. (Crown 8vo., pp. 574, 10s. 6d.), and (2) *Our Indian Protectorate: an Introduction to the Study of the Relations between the British Government and its Indian Feudatories*, by C. L. Tupper, C.S. (Royal 8vo., pp. 442, 16s.)

The September number of *The Telugu Journal of Education*, published at Masulipatam, completes the first year of the existence of this excellent little monthly pamphlet. We are glad to see that the Madras Educational authorities have helped it in its infancy. The Local Boards should now follow suit; and if they do the Editor's hope of being enabled "to go safely through the ensuing year" will be more than fully realized.

The May and June numbers of *The Student's Friend*, received by us in September, continue the career of this illustrated monthly for

younger students. It would repay the Editor to keep an eye to the explanations given under Notes and under Idioms. "The Panch Mahal, Fatchpur-Sikri" is the illustration in the May number; "The Bell Rock Light House," in that of June. A "Table of Contents" would be a great convenience to readers of the Journal.

Our monthly Tamil contemporary *The Viveka Chintamani*, for September 1893, contains eight original articles. Those on Illusions, Hallucinations, and Dreams, are very interesting and contain rational views on some very common phenomena in life, which might otherwise be misunderstood. The Flower-Girl's Song, by Mr. T. Saravanamuttu Pillai is written in inspiring Tamil. At the children's end of the Journal, a dialogue on the varying colours of the chameleon affords excellent reading for the young.

We acknowledge with thanks the receipt of a very interesting Lecture "On Books," by Mr. C. M. Barrow, M.A., Principal, Victoria College, Palghat, and formerly Editor of this Journal. The Lecture is printed in pamphlet form (14 pages) and was delivered in last July to The Students' Literary Association, Coimbatore. The Lecture shows Mr. Barrow's own wide reading and high literary taste, and concludes with a useful list of books recommended. Copies of the pamphlet may be obtained from the printers, Messrs. Srinivasa, Varadachari and Co., Wallajah Road, Madras.

"Female Education in Bengal: A Side Sketch. Compiled from Various Sources and edited by James Wilson, Editor, *Indian Daily News*," has lately reached us from Calcutta. It gives, in pamphlet form, the old story of the heroic struggles and final triumph of Mr. Sasipada Banerji, in founding his Widow's Home at Baranagar. The story is full of instruction as showing what indomitable energy and perseverance can finally effect in face of all the blind forces of religious and social persecution; and thanks are due to Mr. Wilson for putting these facts in a collected form.

We have received from Messrs. Constable and Co., London, the Seventh Edition (1893) of the valuable "Hand-Book of Information relating to University and Professional Studies, &c, for Indian Students in the United Kingdom." The "Hand-Book" costs one rupee, is issued by the Committee of the National Indian Association, and may be obtained in Bombay from Messrs. Thacker and Co.; in Calcutta from Messrs. Thacker, Spink and Co.; in Madras from Messrs. Higginbotham

and Co.; and elsewhere in India, from the Hon. Agents and Hon. Secretaries of Branches of the National Indian Association. The Hand-book is thoroughly up to date, and is quite indispensable to every Indian student about to proceed to England.

We have received from Karachi a Lecture of some 33 pages by Mr. H. P. Jacob, Educational Inspector in Sind. The Lecture, entitled "Public-School Life in England," and now issued in pamphlet form, was delivered last August at the Dayaram Jethmal Sind College, Karachi. Mr. Jacob's high standing and long educational experience, would secure attention for anything he had to say, even if he had not chosen such an attractive subject. But the subject is so interesting, and so ably treated, and the fearless spirit and lofty honour of the English school-boy is full of such light, guidance, and inspiration to Indian students, that we should like to see this Lecture carefully read and laid to heart in every Indian household. Copies of the Lecture may be had at one rupee each from the "Mercantile Press, Karachi," and they are well worth the money.

The Tamil *Maharani*, Vol. VI., Nos. 3 and 4, a double number, for October and December 1892, was very late in reaching us. It contains about 20 coloured pictures of small flowers, two more from English History representing respectively, Edward V. and Richard III., with a readable account of each king, and two other painted pictures with counterparts for the readers to paint. Village and school sanitation, a cat's fidelity in the Crimean War in saving its master by licking his wound, the classification of trees and plants, the beauties of nature as appreciated by the eye, considerate behaviour to women without which a nation must sink as the Turks have done, the fable of the Lion and the mouse with an appropriate picture for children, Lord Roberts' achievements in the last Afghan war,—all these are well portrayed in the former number. The latter, besides continuations of three of these, contains articles on Pleasure and Pain, indifference to either being man's fortitude; "Tie the Camel" from Mahomet's lips, which tells us that business should be attended to before reliance on Providence is practised; and "A Strange Dream" which, like the vision of Mirza, explains how all men are aimless, and how few effect distinction by service to mankind. We have already called attention to the prize competition for the best note on natural phenomena.

The Telugu *Maharani*, Vol. III., Nos. 3 and 4, for May and July 1892, a double number, contains two coloured plates, one being a picture

of life in Tunis and Algiers, and the other an English cottage and foreground. The latter has a counterpart, on the opposite page, to be painted by readers. While such engravings are readily and cheaply executed in England, as, in fact, those under notice have been, it is a great pity that the engraver's profession is not adequately followed in India. These Telugu numbers reproduce some articles appearing in the Tamil. There are other independent articles too. Useful hints are given on Health, and a dialogue in very easy Telugu verse on the value of learning as an acquisition. The meteor stone in Finland, from which one can foretell the weather, the advantage which tact has over tactless learning, the different states of the human pulsation with their several names, and the advantage of one's wishing to keep a comfortable home as against roaming about in quest of pleasure, are all dealt with in an attractive manner.

The Malayalam *Maharani*, a pictorial Magazine specially intended for native schools and families, first issued in January 1893, and conducted under the kind patronage of the Maharajahs of Travancore and Cochin, is, like the Tamil and Telugu editions, a bi-monthly publication. The March number contains an article on 'The Stories of the Senses,' written in an amusing and simple style. The articles on 'Grasp all, Lose all,' and 'Vice rides triumphant in Virtue's Chariot,' are highly instructive to the young school-going population of Kerala. The life of Miss Florence Nightingale may soon bring to the forefront a number of female philanthropists in the well-known 'Land of Charities.' Subscribers to *The Maharani* should find the illustrated article on 'Needle-work Patterns' very useful to them. Other articles on 'Homely Talks about Animals,' 'Search Questions in Natural Knowledge and Answers' may modify for the better some of the crude notions held by the inmates of many a Malabar household. True to our character for honesty and plain dealing, we feel it our duty to draw the attention of the Editor to the many misprints and the frequent use of provincialisms, obsolete words, and meaningless phrases, that appear in this number of his otherwise excellent Malayalam edition. Nos. 3 and 4, Vol. I., a double Malayalam number for May and July 1893, received by us in September, are full of interest, and of rich moral instruction. They contain some seven pictures,—those of life in Scandinavia being remarkably striking and beautiful. An incident in the life of the Princess Alexandra of Wales, given in the first article, shewing her generous nature; the reclaiming of a miser from his evil ways by the return of his father from the Spirit-world; the uselessness of mere book-learning for the purposes of life;—these and other things are dealt

with in easy, simple, Malayalam. This number also contains a song, intended for the Kummy dance of Hindu girls, describing life in Scandinavia, and addressed by a traveller to his friend at home. The great good done by the Editor, Rao Bahadur V. Krishnama Chariyar, in introducing these beautiful pictorial Magazines into the homes of the people, and the great expense to which he is put by the necessity of getting the coloured illustrations executed in England, will, we trust, meet with sympathetic recognition, and win for him that support to which he is so justly entitled.

Funk and Wagnalls' "*Standard Dictionary of the English Language*," which the publishers hope to place in the hands of subscribers by the end of the present year, is a new departure in lexicography. From the prospectus sent to us by the publishers we have no hesitation in saying that "The Standard Dictionary" will take the world by storm. No Professor, no genuine student, of the English Language, can dispense with it. No Library will be complete without it. It will contain 2,80,000 words,—i.e., more than twice the number of words in any other single-volume Dictionary, and 50,000 more than in any other Dictionary of the Language. Some idea of its magnitude may be formed from the fact that it is to contain over 2,200 pages of the same size as the pages of Murray's *New English Dictionary*. Some 200 Editors, the cream of English and American scholarship, are at work on the new Dictionary, which will reflect "the whole scholarship of the present age." The work embodies many new and important principles of lexicography. The pictorial illustrations are nearly 5,000 in number, and are all made expressly for this work, some of them being full-page groups in colours, regular works of art. On the Committee for disputed pronunciations and spellings, we notice, for Anglo-Indian words, the names of the Hon. Mr. R. G. Oxenham, M.A., Acting Director of Public Instruction, Bombay, and that of Mr. H. M. Percival, M.A., of Calcutta. The single-volume Dictionary will cost 12, and the double-volume, 15 dollars. But to all subscribers ordering the Dictionary before it is exposed for sale on the bookstalls, the prices will be only 8 and 10 dollars, respectively. Copies will be taken back by the Publishers, and the money returned, if subscribers are not satisfied with the work. Intending subscribers should write to:—"Funk and Wagnalls Company, 18 and 20, Astor Place, New York, U. S. A."

OUR LONDON LETTER.

The past holiday month of August has seen the issue of numerous reports. The officials are doubtless glad to get them off their hands, and they are by no means holiday reading. But the Indian Journal of Education, its editor and its staff, never allow holidays to interfere with its duty to its readers, and I must therefore perforce note the most salient points in a year's educational work in England.

* * *

First in importance comes the Report of the Committee of Council on Education. The year was one of transition and the full effect of the Education Act of 1891, granting free education, will be experienced only next year; yet striking advances are noticeable. These are briefly summarized in the opening pages of the Report, understood to have been penned by the Vice-President, Mr. Acland, himself. Of the 19,515 schools inspected to 31st August 1892, 15,170 were free; and we are told that on 1st June 1893 only 142 schools had refused the free Fee grant. Other figures for such a late date are not available; but at the former date, the registered free scholars were 38,80,722 to 11,26,257 paying fees. Concurrently with the abolition of school pence the number of school savings banks had risen from 2,629 to 6,383. Under the new code, the number of schools for boys in which drawing was taught increased from 6,075 to 17,048. A very important advance has been made in the encouragement given to Evening Continuation Schools, for which a special Code has been framed and issued. This is an interesting development, which I shall reserve for consideration at some future time. As to age distribution, the following figures are interesting.

Ages 3 to 7	...	...	...	16,11,736
" 7 to 13	...	...	...	32,03,129
" 13 to 14	...	...	...	1,52,930
" over 14	...	...	...	39,184
				50,06,979

These numbers are on an estimated population of 2,94,03,346, so that practically, one in six of the population is on the register of some school.

* * *

I have not unfrequently perceived in Indian papers criticism—not only severe but unfriendly—of the results produced by Training Colleges for teachers and Normal Schools. Doubtless the finished article is not all that one might desire, but such critics are too apt to forget what the raw material is like. It may, however be some consolation to them to

know that India is not the only country where such criticism is possible. The Inspectors of the English Education Department are, in their Report for 1892, unusually severe. Maps are "generally poor"; geography is "not satisfactory"; composition is "trivial in substance, bald in expression, devoid of literary merit," and so on. The general fault seems to be "insufficiency of ideas and lack of development of intelligence." But with these data the English line of argument is very different from that so common in India. If trained teachers are so defective, what would untrained be like? We never found any one hardy enough to argue that training actually spoiled teachers. Doubtless the ideal teacher is born not made—but then so few are born, and what are they among so many? And even the born teacher may learn from the training school something to save labour, just as the born artist may learn to grind his paints and prepare his canvas.

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Of all Mr. Acland's official energies none has provoked more unthinking opposition, than his determination that Voluntary schools shall as a condition of grant provide buildings not absolutely injurious to health and with some pretence at sanitary decency. There are plenty of schools such as those described in the Times by "A Perplexed Parson," "with no drains to speak of, and reeking with sewer gas," with scanty latrines, leaking roofs, and torture desks. The Education minister is changing all this, but not without incurring most unreasoning denunciation. One of his most extraordinary critics has been Lord Stanley of Alderley, who devotes what time he can spare from his consideration of Indian grievances to abusing Mr. Acland with congenial Oriental imagery. Addressing the Earl of Kimberley who is titular head of the Department as well as of the India office, he said that "he should not have taken advantage of his connexion with India to borrow a Bengal tiger and put him in office as Vice-President," and returning to the attack on 28th ultimo, he declared—

"He had recently heard that the Vice-President had not spared Wesleyan and Baptist schools. The right hon. gentleman certainly appeared to have inscribed over the portals of his office *Christianos ad leones*, which in modern English meant Christians must go to the dogs. There were others who explained his action by the doctrine first brought to Europe by Pythagoras, who conceived that his soul once animated one of the lions that devoured the early Christians in the Roman amphitheatre and then passed into the Emperor Julian. He asked the President of the Council if he felt no responsibility for the future increase of suicides already so prevalent, which must inevitably follow from the irreligious education which the Vice-President was endeavouring to spread over the country."

It certainly does seem remarkable that any one should deliberately be driven to commit suicide because a Church or even a Wesleyan

School has to go to the expense of building a new latrine, but we must suppose Lord Stanley has special means of information from the other world where suicides are supposed to wander "unhoused, disappointed, unaneled," *inops inhumataque turba*.

* * *

The division list of the Oxford Local Examinations for 1893 have also just been issued. We have no exact parallel for these examinations in India; but they correspond roughly to our Matriculation Examinations and form the only general test of the efficiency of High Schools for boys and girls. The most interesting feature is the increasing relative popularity of these tests with girls. This is perhaps natural. There are many other ways of testing the competency of boys' schools, by examinations and otherwise, but there is practically none other in the case of girls. Thus, among the juniors, the number of boy candidates increased only from 1,445 to 1,475, that of girls rose from 966 to 1,032. Among the seniors, the boys actually fell from 379 to 359 while the girls jumped from 714 to 825. Of course the small absolute number of boys is here due to the clever seniors being drafted off to the Universities and the public services. As to passes, the percentages among the seniors was practically the same for both sexes, 69 per cent.; among the juniors, however, the percentage for boys was 74 and for girls as high as 82. The numbers passing seem large according to our ideas, but it must be remembered that only those considered by their teachers likely to pass are entered. English parents are too sensible to throw away money in Examination fees when there is not, in the opinion of the teacher—not of the pupil—a fair prospect of success.

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While these figures conspire with others to show the continued steady progress of female education, the so-called Woman's Rights Party seem to have dropped out of notice. And I mention this as an excuse for quoting an equally wise and beautiful deliverance of Dr. Westcott, Bishop of Durham.

"Humanity would be impoverished if women were to set themselves to do all that men do, as their rivals and not their helpmates. I do not attempt to adjust in any balance the gifts and graces of men and women. I only contend that they are different, and precious because they are different. I cannot compare their relative value, nor can I compare the relative value of the services which great poets and great artists render to their countrymen. But I know this: that the world is richer through the services of poet and artist alike, far richer than it would be if one were lost in the other. And even if it may seem to be an old man's prejudice, I can form no loftier wish for women than the poet formed forty years ago, that—

" . . . at the last she set herself to man
Like perfect music unto noble words."

* * *

It may interest some of your readers to learn—in view of the recent election to the Legislative Councils—that of the 356 members of the New House of Representatives at Washington no fewer than 207 are lawyers.

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The silly season has—thanks to the Home Rule Bill, the Coal Strike, and the Tropical Heat—been less obtrusive than usual in the papers this autumn. Such subjects as have cropped up have been, moreover, tinged with the prevailing seriousness. The most serious of all has been suicide. That, as we have already quoted Lord Stanley's authority for, there has been an epidemic of suicide is undoubted, whether the cause be the heat, the depression in trade, over-education, a new bacillus, Mr. Acland's, or any other of the thousand imagined provocatives. The suggested remedies, not indeed for suicide, but for the state of mind culminating in suicide, have been as various as at times ludicrous. Liver pills, vegetarianism, the study of conchology, reading poetry, reading prose, studying theosophy, joining the Catholic Church or the Primrose League, are only some out of the many. But the discussion has soared into a higher plane, and there has been strenuous argument as to both the right of a man to do what he likes with the only possession he cannot buy or sell; and the superiority of the Roman Stoicism to the sickly sentimentality of the nineteenth century. Marcus Aurelius advises us to quit the stage like a well graced actor—"retire well satisfied, for He, by whom you are dismissed, is satisfied too". Too true. "*Navita sed tristis nunc hos nunc adcipit illos*".

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"Suicide"—the word not the thing—has cropped up in another holiday discussion in "*The Times*" upon misused words—a discussion mainly noticeable for the unanimity with which purists differ; and the politeness with which they apologize for mistakes committed by themselves. All which tends to show that however laudable and strenuous be our desire to keep the well of English undefiled, we cannot prevent any language from modifying, growing, borrowing, if you like, corrupting; nor can we withhold ourselves from the unconscious use of words and constructions which our purist conscience cannot but condemn. This is no advocacy for license. I saw on the "Contents Bill" of a London paper yesterday the double-headed abortion—"A Bart's son suicides." But it is going a little too far to rule that the word suicide must not be employed at all; that we must revert to the 16th century "self-homicide." Why not "self-cide" at once?

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The most recent addition to the controversy appears in *The Times* of this morning in the shape of an extract from a circular issued about ten years ago from the Foreign Office. Perhaps you can find room for it, as it pillories a large number of solecisms, a class to which Indian students are most prone.

"Lord Granville desires to call the attention of all members of her Majesty's Diplomatic and Consular services to the necessity for greater care as regards the use of pure English in official correspondence. The following specimens of bad English, mostly due to mistranslation of French words, have been taken from despatches recently received at the Foreign Office. A despatch was received with the following docket:—'Copy of King's speech, with appreciation thereon!' 'Demission' for dismissal, 'transaction' for compromise, 'franchise of duties' for freedom from duties, 'veridical' for true, 'arrestation' for arrest, 'incessantly' for immediately, 'signalize' for point out, 'prorogation' for prolongation, 'increasement' for increase, 'category' for class, 'expose' for state or explain, 'destitution' for dismissal, 'minimal' for very small, 'rally themselves to' for come round to, 'antecedent solidarity' for previous understanding, 'took act' for took note, 'suscitated' for raised, 'debarred of' for debarred from, 'disrecommended' 'unmotived,' 'spiritiste', &c."

GENERAL NEWS.

A Committee has been formed under the name of the School Graduation Committee, with an office at 50, Parliament Street, London, having for its object to promote the systematic and consecutive gradation of schools and Universities, and to supplement the valuable work of recent years in respect of technical instruction by an effort to bring all effective schools and colleges, whether specialized or not, within a comprehensive national scheme. It is thought that this may be most economically done, with the minimum of interference, centralization, and narrowing uniformity, by the recognition and encouragement of existing effective schools, and by using available resources under local control mainly to facilitate the ascent of pupils from lower to higher grades. The committee includes:—Lord Reay (President), Lord Edmond Fitzmaurice, the Hon. E. Lyulph Stanley, Sir A. Hayter, M.P., Sir H. Roscoe, M.P., Sir P. Magnus, Professor R. C. Jebb, M.P., Mr. W. Ambrose, M.P., Mr. G. R. Benson, M.P., the Hon. A. Brand, M.P., Mr. D. Brynmor Jones, M.P., Mr. H. Cozens-Hardy, M.P., Mr. F. Lockwood, M.P., Mr. H. F. Luttrell, M.P., Mr. W. Rees-Davies, M.P., Mr. H. T. Gerrans, and Mr. M. E. Sadler, of Oxford; Professors Meikeljohn, Max Müller, Murison, H. Sidgwick, Sonnenschein, and Steggall; Mr. E. C. Marchant, Mr. T. Raleigh, the Chairman of Convocation London University, the Vice-Chancellors of Victoria and St. Andrews.

Universities, the Dean of the College of Preceptors, the Chairmen of the London, Branford, and other School Boards, the President and Vice-President of the National Union of Teachers; the Principals of University College, Bristol; Mason's College, Birmingham; Firth College, Sheffield; the School of Science and Art, Newcastle; the Technical School, Sheffield; the Technical College, Bradford; the Municipal Technical School, Manchester; and the Central Foundation Schools, London. Persons in sympathy with the movement are invited to communicate with the Hon. Secretary.

* * *

The Royal Colonial Institute has taken up the good work of urging upon Headmasters the teaching of Colonial geography and history. In a circular recently sent out by the Council, we are told that for many years past the attention of the Council of the Royal Colonial Institute has been directed to the great national importance of diffusing amongst the rising generation such a knowledge of the British colonies, geographically, historically, and commercially, as may be of practical service in after life. Nearly ten years have elapsed since the subject was brought by this Institute under the notice of the Headmasters of the great public and middle-class schools, who very generally recognized its importance and expressed a cordial desire to co-operate. It was, however, represented that a serious difficulty presented itself through the want of modern and trustworthy text-books and maps suitable for school use; whereupon the Council placed themselves in communication with the Educational authorities in the various Colonies, with the result that a valuable collection of the books and maps in local use was presented to the Institute. Public attention was thus drawn to the matter, and a number of educational works having special reference to the Colonies have since been issued in this country. Amongst them is a series, which was published under the auspices of the Royal Colonial Institute (after careful revision by a committee of its governing body), and comprises "The West Indies," by C. Washington Eves, C.M.G.; "History of the Dominion of Canada," "Geography of Canada and Newfoundland," and "Geography of Africa, South of the Zambesi," by the Rev. W. P. Gresswell, M. A. During the last decade the Colonies have made enormous advances in general progress and material wealth, but the Council are unable to discover—judging from the information at their disposal—that Colonial subjects have been accorded corresponding prominence in the curriculum of the majority of the public and middle-class schools of this country. It appears to them that a study of the history, geography, climates, and resources of the Colonies and India is of sufficient importance to be treated as a separate and specific subject, and

430

they venture to suggest that the special attention of teachers and examiners should be directed thereto. Most distinctly should "the Empire" form a distinct, separate, and specific subject in every school—not only in Great Britain and Ireland, but in every school in the Empire, if possible.—*Ednl. Review.*

* * *

We (*The Educational Times*) have received the following memorandum from the Committee on the Mental and Physical Condition of Children:—We all know that children are of very unequal educable capability, and vary much in physical strength. Some children have well-made bodies and poor mental capacity—at least for school work—while others are poor all round. Parents, and sometimes even teachers, expect the results of education to be equal, without making allowance for the differences in the material submitted to the processes of training. Disappointment, misunderstandings, and, what is much worse, educational failures, are often due to a want of knowledge of the physical and mental differences among children; and to supply some knowledge on these and kindred subjects a large and representative committee has been formed to inspect children in schools and report on conditions found among them, arranged in groups and classes, quite independent of any preconceived theories as to what should be altered in purely educational matters. Their mode of procedure is to look at each child, and, without asking questions, to note facts seen; then the teachers' report as to mental capacity is written down. Proceeding systematically in this way, a report on 50,000 children, seen by Dr. Francis Warner, has been compiled, and will shortly be published. In this preliminary inquiry, among 50,000 children, nearly 600 presented bodily defects, over 5000 exhibited deviation from the normal nerve state, 3,600 were reported by the teachers as mentally dull, 2000 were pale, thin, or delicate, 800 appeared to require special care and training, 234 were feeble-minded, and about the same number were crippled or deformed, and 54 were subject to fits. Undoubtedly, defects existing in infancy and childhood unchecked, frequently, when accentuated by conditions in after-life, produce changes in the mental and moral nature which evince themselves in startling and repulsive ways. The Committee hope to see 100,000 more children, and think that, if their investigations could be carried out on a large scale, the tabulated results would not only throw light upon many points connected with moral and social defects, but would also form a very valuable guide towards the improvement of the education of the weaker classes of children. The work already done has involved considerable scientific examination and actuarial tabulation; and the Committee appeal for funds to prosecute their important work, which is undertaken in the interests of the public and national education. The office of the Committee is at the Parkes Museum, Margaret Street, London, W.

REVIEWS AND NOTICES OF BOOKS.

THE EARL OF AUCKLAND, by *Captain J. L. Trotter*. Oxford: at the Clarendon Press: 1893. 2s. 6d. ("Rulers of India" Series.)

Lord Auckland was Governor-General for more than five years and thus is entitled, at least by courtesy, to be included amongst the Rulers of India, but on perusing this volume our thought from one board of the book to the other was that this life ought not to have been published in this series. We had imagined that this series was intended to portray the men who have left their mark on India and have built up this great Empire. Possibly the life of Lord Auckland has been inserted advisedly as a foil to set off the others.

Out of 216 pages no less than 180 are given to a narrative of the military operations in Afghanistan and Beluchistan, a narrative compiled from the well-known works of Kaye and other authors, a narrative in which we have not found one word of original matter. Even as a compilation it is badly done. The day and month on which events happened are given, but not the year, and one has to turn over many pages to search for the year. The narration of military movements has not even the merit of a clear style. On page 135 we read of the death of William Broadfoot, "brother of him who, just a year earlier, had died the soldier's death at Parwandarra." We had no recollection of any previous mention of a Broadfoot, and so we turned back to the battle of Parwandarra, but found nothing about the death of any Broadfoot. However, we felt at least glad that the author had written "brother of him" and not "brother to him," because the first thing that jarred on us in this book was that the author tells us that Lord Auckland's mother was "sister to Lord Minto." Then at pages 137 and 138 there is a pronoun "he" wandering about. At first we thought that it referred to Sir William Macnaghten and afterwards we thought it referred to General Elphinstone, but finally we came to the conclusion that it referred to Brigadier Shelton.

In discussing this war in Afghanistan the author gives prominence to Kaye's accusation that public opinion in Europe was misled regarding our invasion of Afghanistan by the garbled blue-book of 1839, which gave only carefully selected passages from the correspondence that had passed. We think that Lord Auckland cannot be held responsible for the dishonest editing of this blue-book. All the papers must have been before the Directors and the Board of Control. It was done probably by Sir John Hobhouse, the man who is really responsible for this war.

Except the narrative of the war in Afghanistan there is very little in this book. Lord Auckland's civil administration was not in any way remarkable. When he landed in India, Macaulay was legal member of Council, and some weeks later the famous "Black Act" was passed. This was an act, under which civil suits where Europeans were parties went on appeal from the Mofussil to the Sudder Court and not to the King's Supreme Court. This act created as much stir among the Europeans in India as did the Ilbert Bill of 1883, and Macaulay was for a time thoroughly unpopular. The author ridicules the agitation which was got up against this Act, but the dislike for the Company's Courts existed in high quarters. In IV, Moore's Indian Appeals, 111, the Privy Council in reversing a decision given concurrently by the Provincial Court and Sudder Court in India said, "This Court is more accustomed to the examination of evidence, than the civil servants of the East India Company, who preside in the native Courts, can be supposed to be." This remark was made on 29th February 1848, nearly twelve years after Macaulay's Act had been in force. But whatever may be the merits of the Act, it was Macaulay's Act and not Lord Auckland's.

Another matter which the author mentions is that Lord Auckland ordered the survey of the Ganges canal scheme. The author must have been hard pressed for matter when he dragged this in. Lord Hastings had already made canals at Delhi and all that Lord Auckland did was to sanction enquiry into the scheme which Lord Dalhousie carried out. Even here the author seems to be inaccurate. He says: "nor had any large scheme of irrigation been as yet devised for that part of India whose harvests depended on the due amount and distribution of the yearly rainfall." We are not sure that we quite understand this sentence, and we write subject to correction, but we believe that the irrigation canals of the Kaveri delta were in existence before this date.

One thing which Lord Auckland seems to have done of his own motion was a partial reversal of the educational policy of Lord William Bentinck and of Macaulay, by restoring some Government scholarships to the colleges where the Oriental Classics were taught. This retrograde step was taken in spite of the protests of Dr. Duff, the eminent Scottish missionary in Calcutta.

Another step taken in Lord Auckland's time was the severance of all connexion between Government and Muhammadan mosques or Hindu temples. This was not done by Lord Auckland himself. It was done in accordance with orders from London. It is a question whether the severance was not too complete and whether an impartial Government ought not to interfere to protect these fanes from spoliation.

The solitary mention of the Madras Presidency in this book is a few lines telling how Kurnool was taken in 1838. The conspiracy was more serious than it here appears. The prime mover was Mobariz-ud-daula, brother of the Nizam. He was in correspondence with Ranjit Singh, the Ruler of the Panjab. It was arranged that Mobariz-ud-daula should revolt at Hyderabad and march south on Madras by way of Kurnool and of Udayagiri in the Nellore District, where munitions of war were secretly collected, and it was expected that the Nawab of the Carnatic would join them from Madras. The Government of Fort St. George was well informed of the progress of the plot and anticipated it by the arrest of the Nawab of Kurnool and of the Jaghiredar of Udayagiri.

Captain Trotter admits that Lord Auckland looked on helpless at the misgovernment in the Nizam's Dominions, because the Afghan war occupied all his thoughts. Precisely. That is the history of Lord Auckland's viceroyalty told in one sentence. He found India in profound peace and many problems of administration lay ready to his hand. He left them all and plunged into an aggressive war without pretext. This life is a useful model of all that a Viceroy ought not to be.

ANCIENT INDIA 2,000 B. C.—800 A. D., by Romesh Chander Dutt, C.I.E., I.C.S. With two Maps. London: Longmans, Green & Co. 1893. 2s. 6d. (*Epochs of Indian History*.)

We gladly welcome this first volume of Messrs. Longmans, Green, and Co.'s "Epochs of Indian History". The author, Mr. R. C. Dutt, is the well-known writer of a well-received work on the history of Civilization in Ancient India, and we congratulate Mr. Adam, the editor of the series, on his having chosen Mr. Dutt to be the writer of this little volume on Ancient India.

It is far from easy to write a thoroughly faultless history of Ancient India for reasons that must be more or less obvious to all. Anything like a collection and critical examination of the materials forming the sources of Ancient Indian History is only just now being attempted, and many of the details of the social and political features peculiarly characteristic of the channel through which the stream of humanity and civilization flowed in Ancient India are not even yet made out to any appreciable extent. The mind of the ancient Hindu cared very little to preserve traditionally or otherwise any account of purely political and social events, which to him had only a passing interest. But at the same time it must be said that no people has been more remarkable than the ancient Hindus in preserving and handing

on its national religious literature from generation to generation. Nobody can deny the fact that ancient Indian civilization and culture have had as much influence in humanizing and ethicizing a very large part of the Asiatic world of man as ancient Greek culture and civilization in developing the mental and moral characteristics of the European races. Professor Max Duncker, in the preface to his well-known volumes on Ancient Greek history, appears to hold that both enquiry and constructive criticism must be combined together in all attempts to make out the history of any ancient civilization. He says that "for the basis of science each of the two factors is indispensable; if we need to sift the materials in order to establish the facts, we need also to understand and think of them in combination. It is the interaction of these two factors which discloses the hidden secret; for not only does the whole exist in and through the parts, but from the whole the parts receive their life and light." In addition to other qualities, the historian must possess a very large amount of sympathy with the subject he handles, in order that he may produce in his work such a combination of enquiry and criticism as is calculated to disclose hidden historical secrets. And Mr. Dutt possesses many of the historian's true qualities, and has this kind of sympathy to the fullest extent, perhaps even to a fault, as it may appear to some. We have no doubt that many Hindu readers of this book will feel the better for having read it, will learn to esteem rightly their country's past and to work earnestly for the proper development of its future.

We cannot easily settle how old the ancient civilization of India is, but it occurs to us that the lower limit of B. C. 2,000, which the author gives to the birth and growth of this civilization, is not near the truth. Professor Sayce has pointed out that the word *Sindhu* occurs in an ancient Babylonian list of clothing of a period not later than B. C. 3,000, and means probably "muslin" or some kind of woven cotton stuff. From the form of the word he infers that the material indicated by it could not have been imported by land through Persia, but must have come to Mesopotamia directly from India through the sea. The discovery of teak wood in the ruins of Mugheir, he believes, goes to corroborate his conclusion that there must have existed trade-relations so early between India and Babylonia. Surely therefore even the Aryan civilization of Ancient India must be older than B. C. 2,000, which is however the lower limit that Professor Max Müller assigns to what he has called the Chhandas period of Ancient Sanskrit literature. On this Mr. Dutt seems to rely wholly for fixing the lower limit of Ancient Indian civilization. In this connexion it may also be worth noticing that we have very good evidence to show that the war of the

Mahabharata must have been fought about the middle of the 15th century before the Christian era, but not in the "thirteenth century before Christ" as Mr. Dutt holds. Professor Max Duncker also in the volume on India in his *History of Antiquity* comes, after a very careful consideration of much of the Hindu and Buddhistic evidence available, to the deliberate conclusion that Parikshit must have ascended the throne of Hastinapuram in B. C. 1,418; and the *Mahabharata* makes it clear that Yudhishtira, the eldest of the Pandavas and the immediate predecessor of Parikshit on that throne, reigned for about thirty years after their victory in the famous war.

Every writer on Indian History should be very careful in the use of the word *Hindu*. Ethnographically this word has no definite significance; it has reference to, and derives its meaning from, a particular form of civilization and a particular form of religion. "Polyandry was unknown to the Hindus of Ancient India as it is to the Hindus of the present day," says Mr. Dutt. Comparative Philology and Indian Vedic literature shew that polyandry did not exist among the Aryas of Ancient India; but nothing can be stated with certainty as to the existence or otherwise of polyandry among the non-Aryan tribes of ancient India. There are some who are of opinion that polyandry was probably widely in existence as a social institution in Ancient India among many non-Aryan tribes about the time they were conquered and subjugated by the Aryas. As a matter of fact much still remains to be discovered regarding the condition of non-Aryan civilization in India before the advent of the Aryas, and much also regarding the effect on each other of the close intermingling in life of the Aryas and the non-Aryas in early times. Even to-day we cannot say that, in this country, traces of polyandry and signs of its former existence are altogether absent. What the author means by the word *Hindu*, which occurs twice in the sentence quoted above, is not quite clear to us. Elsewhere in the book he says that "to the present day the Hindus of Northern India are almost pure Aryans," and that the aboriginal tribes in the South, "in adopting Hindu religion, selected priests and Brahmans of their own races." It is desirable to know on what evidence this conclusion is based, for we are not now in a position to make out much about the racial characteristics of the Hindus of Northern India as a whole, or about the history of the ancient Aryan colonies in South India. Who the author's non-Aryan *aboriginal* Brahmans are, we are unable to understand.

We are very much pleased to note the prominent way in which the author brings out the intellectual moral and political eminence of ancient India. Arithmetic, algebra, geometry, trigonometry, and astronomy,—poetry, rhetoric, grammar, logic, and philosophy have

all had an independent origin and growth in this country. Medicine, architecture, agriculture, and many other arts of peace were all well developed here in early times, and the military and political organizations of the country in those days exhibited in a striking manner the power of self-sacrifice and self-government possessed by the people at large. The finest flower of ancient Indian thought is to be found in the field of religious culture, and Asoka, undoubtedly the best among the great rulers of the world, explains religion in his pillar edicts to be "mercy, charity, truth, and purity." The outlines of the growth of Brahmanism from the Vedic religion of the early Aryas, of Buddhism from Brahmanism, and of modern Hinduism from all these, are all well described in the book, though of necessity but briefly. Later Buddhism took up much popular superstition from the masses of the people, and Puranic Hinduism also is, in many matters of external detail, a compromise between the philosophy of the *Upanishads* on the one hand and the numerous non-Aryan local tribal cults on the other. Nevertheless, no true Hindu can fail to understand the truthfulness of the author's position expressed in the following sentences:—"Both Vedic Hinduism and Puranic Hinduism recognize one great God, the all-pervading Breath, the universal Soul of the *Upanishads*. Both teach that the universe is an emanation from Him and will resolve into Him. Both recognize rewards and punishments in after life or lives according to deeds performed in this life, and both insist on the final absorption of our souls in the Deity. In these great doctrines there has been no change, and no falling off."

The Hindus are now a fallen people—fallen politically, socially, morally, and even intellectually. It will do them some good if they realize, when under well-meaning British rule, that they are, as at present situated, in every way unworthy of their descent from their great ancestors who sent forth much light and life to the world around and after them. We most heartily recommend this book to every reader of Indian History.

PHYSICS by J. Cook, M.A., Central College, Bangalore. London: Longmans, Green & Co.; 1893. 2s. 6d. (*Longmans' Text-Books for Indian Schools.*)

This is a text-book on general Physics designed to suit the general intelligence of the pupils in our Indian Schools. The matter is well arranged and the 'middle course' which the author has set himself to follow has been well adhered to throughout. It is well printed, and the choice of type has been judicious. But it is to be hoped that the

small type which has been used throughout for descriptions of experiments and apparatus will not lead the beginner to infer that they are portions to be regarded as relatively unimportant.

For it is in the experimental portion that the book excels. The experiments are judiciously selected, good in plan, forcible in illustration, and simple to carry out. The necessary apparatus is fully described and when original, or out of the common, the description often begins with such an expression as "get a tin-man to make you"—shewing that it can be easily procured by any one either teaching or learning Physics in Indian Schools. These portions of the book will be found extremely useful to teachers. At the end of the volume we have some further practical hints which could not well be incorporated in the text.

The first chapter is styled 'Introductory', but we should advise all beginners who value their peace of mind to leave it out till they have mastered the rest of the book. Then follow seven chapters on the properties of matter, dynamics, and hydrostatics. Some portions of these we should like to see modified and put into simpler language. What for instance can the average Indian school boy make out of the following, which occurs in the statement of the conservation of energy on p. 37—"There is a ceaseless flux among the various energies, but the sum of them all is unchangeable." Chapter VI begins with the words "Gravity or weight is the force" &c. It is a pity to introduce the word *gravity* in this connexion, when the word *weight* is quite sufficient. Our experience is that Indian students use the word *gravity* sometimes to denote weight, but far oftener to denote something the exact nature of which they do not know.

Throughout the volume we find that general statements are carefully illustrated by particular instances, and there is a freshness about these instances as there is about the experiments. As an example we find mention made of quartz fibres and of Lord Rayleigh's experiment on the behaviour of liquid jets in an electrostatic field.

It is to be hoped that the value of this work will be appreciated in Indian Schools, as in our opinion it admirably fulfils the purpose for which it was written.

ABRIDGEMENT OF THE HISTORY OF INDIA by John Clark Marshman, C.S.I.
Third Edition. London: William Blackwood and Sons. 1893. 6s.

We have before us the new edition of the abridgement of Marshman's History of India. The value of this history as a work of reference is too well-known for it to be necessary to dwell on the fact. It belongs to that class of volumes, more popular perhaps with our grandfathers

than in the present day, which consist of a summary of dry facts, compiled as in the present case with an infinitude of care in every way admirable, but unrelieved by the discussion of those great principles and by that philosophic continuity, which afford pleasure to the historical student in many works of the present day. The logical treatises which delight the reader of historians such as Macaulay and Carlyle possess no parallel in the work under notice, and yet the mathematical accuracy displayed in the compilation of lists of events is invaluable to the seeker after information on Anglo-Indian historical questions. A striking example of this fact is to be found in the author's treatment of the Indian mutiny in this new Abridgement of his large work. We find 24 pages devoted to the interesting details of the outbreak, but less than two pages are devoted to so important a matter as the causes of the mutiny, and the great and enduring effect which these events produced on the Indian peoples and their rulers is disposed of in a few lines.

The distinctive feature which marks this edition is the fact that it has been continued by a relative of the author, who died we believe sixteen years ago. The work has been excellently done, and the list of facts are set down with the same accuracy which characterizes the original work. We do not, however, approve of such additions to the work of deceased authors, except in rare instances. If a man's work possesses any personality, it should surely be handed down to posterity as he left it. To give an example from a work alluded to above, we are not aware, though many editions of Macaulay's History of England have been published, that any aspirant to literary fame has endeavoured to bring the work up to date, or write a continuation thereof.

If the editor of this volume wished to improve the work in a legitimate manner, it is a pity that he did not adopt the simple transliteral spelling of Indian names in preference to the old customary method of twisting native names into European shapes. Such philological offences as Teloogoo for Telugu jar on one's nerves, and are likely to mislead the young student. The fact that, though the work is entitled a history of India, more than three-fourths of the work is a summary of the doings of the English in India, spoils the sense of proportion so necessary to a historical work, and is to be regretted at a time when the history of the peoples of this country is attracting so much interest. That India has no history of its own is, we are aware, the much-to-be-deplored opinion of a few educationists in India, and if we were to judge simply by the list of subjects in which the history student is required to graduate in an Indian University, this impression of the non-existence of Indian history before the English power, would be still

THE HISTORY OF INDIA, with chapters on the Physical Geography; the Ancient, and Modern Political Divisions and Places of Interest; and India in 1893, its Peoples, their Condition, Resources, Institutions and Forms of Imperial, Provincial and Municipal Government, by Sir Roper Lethbridge, K.C.I.E., M.A., With Maps. London: Macmillan and Co., 1893; 2s.

Sir Roper Lethbridge undertook no light task when he set himself to write a History of India, with the additional useful chapters mentioned on the title page, and especially when he attempted to do so in the small compass of the handy little volume before us. The numerous divisions of India, its various peoples, and their political complications make the compilation of any such work of whatever size, bearing a due regard to that valuable quality of historical proportion, an undertaking of remarkable difficulty. A careful study of the work under notice gave us an agreeable surprise. Instead of the dull, dreary compilation of bare facts which an experience of Indian histories in general had made us dread, we were pleased to find that this work supplied a long felt want, and combines agreeable reading with a really valuable and comprehensive sketch of Indian History treated in a spirit of philosophic continuity. In fact, we should feel inclined to recommend a student who aspires to a general knowledge of the history of India to confine himself to this work, and to Sir W. W. Hunter's 'Brief History of the Indian Peoples,' at any rate until we have a complete set of the Epochs of Indian History now in course of preparation under the editorship of Mr. John Adam. In any case we should warn him off those mouldy compilations of misunderstood facts which have made the study of the history of this country 'vanity and vexation of spirit' to most of us in past years.

Sir Roper Lethbridge's work in a less complete form has been a text-book in Indian Institutions for upwards of 10 years, and we feel sure that the very valuable chapters added to the present edition will render it even more popular among educationists. The chapter on 'India in 1893' is compiled with remarkable care and view to utility, and Sir Roper Lethbridge is to be congratulated on bringing the work up to date in the best sense of the phrase.

A HAND-BOOK OF ENGLISH PARSING by D. B. Hakim: Mission Press, Surat: 1891. 8 Annas. (Second edition, revised and enlarged).

We lay down this little book with a feeling of genuine but agreeable surprise. We have often felt the need of such a book, without knowing of its existence. That it has been on the bookstalls of Northern India since 1890 without being known in the South is the fault of the compiler alone. Such Grammarians as Mätzner, Morris, Abbott, and

Mason, are laid under contribution; while hints from such well-known Anglo-Indian Educationists as Messrs. Littledale, Giles, Jacob, and Dr. McDonald are gratefully acknowledged. Idiomatic phrases and sentences, collected from papers set at Oxford, Cambridge, London and Bombay are given, with references to the paragraphs containing the required explanations. The book is all that such a work should be,—systematic in treatment, correct in detail, and based upon the best authorities. The portions in larger type are suitable for Middle Schools; while those in smaller type are more adapted to the requirements of High Schools and might often be consulted with advantage by many a student in the Junior Departments of Indian Colleges. And the book costs only 8 annas! We cordially recommend its introduction into every school in India and Burma that sets any value upon correct and systematic English Parsing.

CHAUCER. THE CLERKES TALE, edited by E. H. Elliot: Madras, Srinivasa, Varadachari & Co., 1893.

The Editor of this Edition of *The Clerk's Tale* writes a modest preface in which he disclaims all pretensions to originality. In fields once "erred" by such masters as Doctors Skeat and Morris, there is indeed little left for the after-comer. One thing only may he do. He may "supplement" and "expand" the work of either Doctor, as Mr. Elliot has done in the case of Dr. Skeat, and as we think, has done successfully. The few errors and omissions here and there in the notes will in all cases, we have no doubt, be set right in the class-room. We do not know the price of the book, which is a pity. We would request Indian publishers to do as all other publishers do, viz., to mark on a slip in the book, if it is not printed on the cover, the price of all books sent anywhere for notice. If the prices are the same we should recommend the purchase of Skeat's edition as affording the better mental exercise. But if the Indian edition is the cheaper, we can safely recommend it, as being the fuller of the two, and as being the work of a competent hand who knows the requirements of the Indian student.

FOUR YEARS IN AN ENGLISH UNIVERSITY by S. Sathianadhan, M.A., LL.B., (Cantab.) Second Edition. Madras: Srinivasa, Varadachari & Co., 1893. Rs. 1-8.

The slim little volume of 1890, being a first edition, had only 138 pages, but this second edition has grown to the stouter compass of 230. Mr. A. C. Dutt, c.s., wrote a chapter on the Civil Service for the first edition; and his contribution reappears now with an addendum

from the general author, but appears in a new form, as part of a larger "Complete Guide to Indian Students proceeding to Great Britain." "How to qualify for the Bar" by Mr. C. Krishnan, B.A., (Cantab.), Barrister-at-Law, is part of this new guide, which contains full information about the Universities and Services. The Rev. F. W. Kellett, M.A., has also helped the new edition by correcting and bringing the work up to date, as has now been thoroughly done. The general outlines of the "Complete Guide to Students" will no doubt always remain the same, but as Rules and Examinations vary from year to year, the National Indian Association's annual "Handbook of Information for Indian Students in the United Kingdom," will, in such matters, be the only absolutely trustworthy guide. The popularity of Mr. Saththianadhan's book is sufficiently attested by its now having reached a second edition; but, even if it were not, we should gladly recommend, as being on its own merits well worthy of perusal, this new edition, which is in every way an improvement on its predecessor.

BOOKS RECEIVED.

THE MARQUIS OF WELLESLEY, K.G., by the Rev. W. H. Hutton, M.A.: Oxford: at the Clarendon Press: 1893. 2s. 6d. (*Rulers of India.*)

GREEK-ENGLISH LEXICON TO THE NEW TESTAMENT, by W. J. Hickie, M.A.: London: Macmillan & Co.: 1893. 3s.

A SHORT HISTORY OF THE ENGLISH PEOPLE, by J. R. Green, Parts 22 and 23, Macmillan's Illustrated Edition. London: 1893. 1s. each, nett.

ENUNCIATIONS IN ARITHMETIC, ALGEBRA, EUCLID AND TRIGONOMETRY, by P. A. Thomas, B.A.: London: Macmillan & Co.: 1893. 2s.; nett.

ELEMENTS OF PSYCHOLOGY, by J. M. Baldwin. London: Macmillan & Co.: 1893. 7s. 6d.

EDWARD I, by Professor T. F. Tout. London: Macmillan & Co.: 1893. 2s. 6d. (*Twelve English Statesmen.*)

MACAULAY'S LORD CLIVE, with Introduction and Notes by K. Deighton. London: Macmillan & Co.: 1893. 2s. (*English Classics.*)

ARDEN'S TAMIL READER, Vol. II., by the Rev. P. H. Arden, M.A.: London, Kegan Paul, Trench, Trübner & Co.; and Madras, S. P. C. K., Vepery, 1893. Rs. 3½ or 5s.

A COMPANION READER to Arden's Progressive Tamil Grammar, by the Rev. A. H. Arden, M.A.: London, Kegan Paul, Trench, Trübner & Co.; and Madras, S. P. C. K., Vepery, 1893. Rs. 3½ or 5s.

A GRAMMAR OF THE HINDI LANGUAGE: in which are treated the High Hindi, Braj, and the Eastern Hindi of the Ramayan of Tulsi Das, also the Colloquial Dialects of Rajputana, Kumaon, Avadh, Riwa, Bhojpur, Magadha, Maithila, &c., with copious Philological Notes, by the Rev. S. H. Kellogg, D.D., LL.D., of the American Presbyterian Mission, North India. Second edition. Revised and enlarged. London: Kegan Paul, Trench, Trübner, & Co.: 1893. (Pages xviii and 584).

MADRAS EDUCATIONAL NOTIFICATIONS.

University.

In accordance with paragraph 2 of the rules relating to the election of Fellows by graduates published in the *Fort St. George Gazette*, dated 18th July 1893, it is hereby notified that the following names were proposed and seconded as candidates for election as Fellows at the annual meeting of the Senate held on the 31st August.

Name of Candidate.	Name of Proposer.	Name of Seconder.
N. Subrahmanyam, Esq., B.A., B.L., Acting Chief Judge, Madras Small Cause Court.	Sir T. Muttuswami Aiyar, B.L., K.C.I.E.	M. R. Ry., Sankara Aiyar Avargal, B.A.
M. R. Ry. M. O. Parthasarathi Aiyangar Avargal, M.A., M.L., Advocate, Madras High Court.	Do. do.	Dewan Bahadur Srinivasa Raghava Aiyangar, B.A.
Rai Bahadur P. Ananda Charlu, B.L., High Court Vakil, Madras...	M. R. Ry. Balaji Rau Avargal, B.L.	The Hon'ble C. Sankara Nair, B.A., B.L.
M. R. Ry. N. Vaidyanatha Aiyar Avargal, M.A., Lecturer, Rajahmundry College.	Dewan Bahadur Subrahmanya Aiyar, B.L. C.I.E.	M. R. Ry., R. Balaji Rau Avargal, B.L.
Colonel Olcott, President Theosophical Society, Madras.	M. R. Ry., A. Sankara Aiyar Avargal, B.A.	Mir Ausaruddin Sahib Bahadur.
M. R. Ry. M. Jagga Row Pillai Avargal, B.A., B.L., High Court Vakil, Madras.	Do. do.	Do. do.
M. R. Ry. M. Ranga Chariyar Avargal, M.A., Lecturer, Rajahmundry College.	The Hon'ble The Rev. Dr. Miller, C.I.E.	M. R. Ry. P. Vijiaranga Mudaliyar Avargal.
Surgeon-Major John Lancaster, M.A., District Surgeon, Vellore...	Surgeon-Major-Genl. W. F. deFabeck, M.D.	John Bradshaw, Esq., M.A., LL. D.
M. R. Ry. C. Nagoji Rau Avargal, B.A., Inspector of Schools, Northern Circle.	Rai Bahadur P. Rungnatha Mudaliyar, M.A.	Geo. Bickle, Esq.
S. Saththianadhan, Esq., M.A., LL.B., Acting Professor, Presidency College.	W. H. Wilson, Esq., Ph. D.	J. B. Bilderbeck, Esq., M.A.
C. G. Kuppuswami Aiyar, Esq., B.A., B.L., Presidency Magistrate, Madras.	Rai Bahadur V. Krishnamachariyar.	M. R. Ry., A. Sankara Aiyar Avargal, B.A.
M. R. Ry. C. V. Sundaram Sastriyar Avargal, B.A., B.L., High Court Vakil, Madras.	Do. do.	Mir Ansarudin Sahib Bahadur.

2. The following classes of persons only will be permitted to vote:—

- (i). Masters of Arts of the University of Madras. Do.
- (ii). Do. Laws of the Do.
- (iii). Doctors of Medicine of the Do.
- (iv). Bachelors of Arts of the Do.
- (v). Do. of Laws of the Do.
- (vi). Do. of Medicine, and masters in Surgery of the Do.
- (vii). Do. of Civil Engineering of the Do.

provided also that no person belonging to the last four classes will be permitted to vote unless he took his degree at least twenty years before the date of the election.

3. Candidates entitled to vote who are not residing in Madras and who may consequently be unable to attend the voting in the Senate House, in person, are requested to apply to the Registrar for voting papers. The voting papers should be forwarded, duly filled in, in envelopes sent for the purpose, so as to reach the Registrar not later than Friday the 24th November, 1893. The voting at the Senate House will take place on Saturday the 25th November 1893 from 3 to 5-30 P. M. Voters residing in Madras will receive voting papers when they call at the Senate House in person, to record their votes.

(By Order)

SENATE HOUSE 13th September 1893.

Leave.

No. 69.—Mr. J. Bradshaw, M.A., LL.D., privilege leave for one month and thirteen days, from or after the 28th August 1893, under Article 291 of the Civil Service Regulations.

Appointments.

Ootacamund, September 9, 1893.

No. 74.—The following Notification of the Government of India, Home Department (Education) dated Simla, the 1st September 1893, No. 286, is published:—

The services of Mr. A. Munro, Barrister-at-Law, Inspector-General of Education in the Central Provinces are placed temporarily at the disposal of the Government of Madras.

No. 75.—Mr. A. Munro, M.A., B.C.L., Barrister-at-law, to act as Director of Public Instruction and Commissioner for the U. C. S. Examinations during the absence of Mr. D. Duncan, M.A., B. Sc., on leave, or until further orders.

No. 76.—Mr. Edmund Marsden, B.A., Inspector of Schools, Western Circle, to have charge of the Central Circle, without prejudice to his own duties, during the absence on leave of Dr. Bradshaw, or until further orders.

Transfer of Services.

Ootacamund, September 11th, 1893.

No. 77.—The services of Mr. J. J. Whiteley are replaced at the disposal of the Public Works Department, with effect from date of his relief by Mr. Chatterton.

U. C. S. Examinations.

1. Candidates who, at the last Examination held in November 1892, completed both stages of the Preliminary Higher or Intermediate Examination, will be entitled to receive the new "Group Certificate in Drawing."

2. Those who have not completed the Intermediate group according to the old syllabus but have passed in certain branches, will be required to pass in the remaining branches only, so as to complete the work for the several single subject certificates. For example, a candidate who has passed in Geometry and Measurement Drawing according to the old syllabus will, according to the revised arrangement, be required to pass in Perspective also in order to be entitled to the certificate for Intermediate Geometrical Drawing. So also, in the case of Free-hand outline Drawing, Painting, or Design.

3. The above remarks apply also to the Diploma in Drawing, which nearly corresponds to the old certificate for section A of the Advanced Group.

4. As, after this year, it will probably be very difficult, if not impossible, to make the above arrangements for the convenience of Candidates who have already passed in certain subjects according to the old syllabus, it is advisable that they should appear at the next Examination and complete the work for each single subject certificate.

21st August 1893.

(By Order)

APPLIED MATHEMATICS.

Well begun is half done.—*Franklin.*

The beginning is one-half of the whole.—*Pythagoras.*

Conduct is three-fourths of life.—*Matthew Arnold.*

The normal man is two thirds will.—*Schopenhauer.*

To ask questions rightly is the half of knowledge.—*Bacon.*

A man that has another language than his own doubles himself.
Goethe.

An ounce of pluck is worth a pound of luck.—*President Garfield.*

THE INDIAN JOURNAL OF EDUCATION

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The Editor has to remind all LITERARY correspondents, as well as publishers forwarding books, magazines, etc., for review, that, to ensure attention, they should be addressed to him at PACHAIYAPPA'S COLLEGE, MADRAS; and, for publication or notice in the succeeding issue, should reach him not later than the 20th of each month. No unsuitable contributions will be returned. All BUSINESS communications should be addressed to the Publisher.

EDITORIAL NOTES.

The nomination by Government of Mr. A. Munro M.A., B.C.L., Barrister-at-Law, Acting Director of Public Instruction, Madras, to a seat on the enlarged Legislative Council, Madras, is an event on which we offer him and the Educational Department our best congratulations. Apart from the personal honour, it marks in a notable manner the importance attached by Government to the great department which is responsible for the early training of nearly the whole of the staff of public servants employed in carrying on the work of the Government in subordinate educational and administrative posts throughout the whole of the Presidency. The Department of Public Instruction ranks behind

none in its importance; and Government is to be congratulated on the wisdom it has shown in giving this fact public recognition when a chance was offered by the enlargement of the Legislative Council. We hope in future to see the Head of the Educational Department always holding a seat in the Council. We do not mean that Education was wholly unrepresented without this appointment, considering that two members of the Syndicate of the University of Madras would in any case be on the Council,—The Hon. The Rev. Dr. Miller, C.I.E., and the Hon. Mr. J. Grose, M.A., C.S., but the Director of Public Instruction for the time being is the natural representative of Education.

* * *

As the proposed new University for Burma has latterly excited a great deal of interest in India, we are glad to be able to lay before our readers in this number a particularly interesting and instructive article on the subject from the pen of the Rev. Dr. Marks, Principal, St. John's College, S.P.G., Rangoon. The Venerable Bishop Bigandet, "as the greatest scholar in the country, as the head of a Catholic Mission which has worked on Burmese Education since 1720, and as the Vice-President of the Board of Education since its commencement," could alone, of all men living, have written with greater authority than Dr. Marks. But Dr. Marks leads the van of the zealous missionary educationists who have done all that in them lay to diffuse the light of Western Education in Burma since the annexation of 1852. He has a rich and varied experience of all the existing conditions and existing needs of his Province. As the Hon. Mr. Justice Jardine, whom we have quoted above, remarks of him in the current number of *The Indian Magazine and Review*, just to hand, "His name is a household word all over Burma." He is, therefore, entitled to speak with authority, and to be listened to with respect, on a subject of such vast importance to the future well-being of his Province. We pointed out in our July number that the scheme of the new University agreed upon by the Educational Syndicate of Burma had then been transmitted to the Chief Commissioner to be by him forwarded for the consideration of the Government of India. Again in our August number we gave a short but interesting sketch of the question by the Hon. Mr. Justice Jardine, formerly President of the Burma Educational Syndicate, now a Judge of the High Court, Bombay. Dr. Marks now deals with the whole question in a thorough manner

that should carry to all unprejudiced minds a conviction of the wisdom and expediency of creating in Burma a new University, and that "without loss of time." His arguments, like his figures, seem to us to be "irrefragable," and we strongly recommend their perusal to *The Pioneer*, which in its issue of the 10th instant dismisses the subject in a few ill-judged and contemptuous words. The whole question is still under the consideration of Government; and we earnestly hope that when the decision is announced that decision will be in favour of the popular demand.

* * *

One of the most remarkable items to be gleaned from "The Thirty-Seventh Annual Report of the Syndicate of the University of Madras, 1892-93," dealing with the academic year ending 31st March, 1893, and recently issued by the Syndicate, is the great decrease in the number of candidates for the Matriculation Examination. Owing to the strict but salutary changes made in the new regulations for the Matriculation Examination, there were only 3,402 candidates during the year referred to as against 8,029 in the preceding year. To those who have at heart the true interests of education this is not a matter for regret. By the old rules crowds used to appear for the Entrance Examination who were wholly unfit to enter upon a university course, and although that is a danger that can never, perhaps, be wholly obviated, yet by the new rules careful provision has been made against it. Government regarded the old standard as being too low a test for admission even into its subordinate service, and therefore instituted its own Upper Secondary Examination for that purpose. But the Matriculation standard has now been greatly improved; and it is not sufficiently obvious why Government has not accepted the new Matriculation Examination as affording a satisfactory test. The real cause of the enormous downfall in the number of Matriculation candidates is not, however, the difficulty of the revised curriculum. Fully half of the candidates were formerly old failures who, year by year, went up privately, or wandered about irregularly from school to school, in the hope of passing by some lucky chance. That is the class—and a worthless one it was—that has been eliminated by the new rules. That this element was so strong is, however, a matter for some surprise; that it has been got rid of is a matter for congratulation.

Without exemption specially granted, for strong reasons approved of by the Syndicate—and nearly all applications for such exemption are frivolous and therefore justly rejected—every candidate, whether he appears for the first time or is an old failure, must now produce a certificate showing that he has studied at a recognized High School for the whole of the year immediately preceding the Examination. Thus it is the elimination of the ill-prepared private student, and that alone, that is responsible for the decrease by 57·6 per cent of the number of candidates presenting themselves for the first Matriculation Examination under the new rules. The numbers registered for the second such Examination have just been added up and found to be 3,423, or only 21 more than last year. It would thus seem as if these numbers were now likely to remain steady, and as if the Matriculation level of duly prepared candidates had at last been found.

Owing solely to this decrease we find in the Syndicate's Report for the year referred to the unwonted item—"Excess of Disbursements over Receipts, Rs. 3,395-7-2." Neither is this a matter for regret. A University exists, not to save money, but to serve as a great centre for the dissemination of liberal culture; and according as this true ideal of a University is carried out, just in that proportion will its closing balance be lighter. The closing balance in favour of the University on 1st April 1892 was a little over 2½ lakhs of Rupees. On 1st April 1893, it was a little under the same figure. That is the only difference. If closing balances, instead of wise expenditure, were the true measure of the success of a University, then all the Universities of the earth would have to hide their diminished heads before a certain pottering little American University, concerning which we have lately heard a great deal, which in spite of an annual income far exceeding that of all the Universities of the British Empire added together, and recalling visions of "all the wealth of Ormuz and of Ind," cannot for one moment be compared, in point of practical utility, with any one of the older Universities of India.

The regulations affecting both the Matriculation and the B.A. Degree Examinations of the University of Madras have recently been revised with excellent results to education. A highly desirable end attained in both cases is that failed candidates, desiring to pre-

sent themselves for re-examination, have, unless specially exempted (and exemption is hardly ever granted) by the Syndicate, to produce certificates of having attended at some authorized or affiliated Institution for the two terms immediately preceding the Examination at which they wish to present themselves. But this much-needed reform has not yet been carried out in the case of the F. A. Examination,—which is a great pity. All obstacles have been removed at the starting-post and at the goal, but there is still trouble at the half-way house. Principals of Colleges of both grades well know how unsatisfactory is the existing condition of affairs as regards candidates who fail at this examination, and then come flocking for admission to their Colleges for one term only, viz., the second term of each year, the term immediately preceding each F. A. Examination. The inevitable result of this is that the majority of such students regularly submit themselves for re-examination at the University without suitable preparation, and nobody has power to prevent this anomaly, as the old certificates are accepted as sufficient. It is moreover notorious that such students introduce an element of confusion and disturbance into an otherwise well-organized F. A. Class. We earnestly hope that the University will not lose time in remedying this crying grievance, and thereby finish in a consistent manner the good work which it has already carried so far.

The Rangoon Teachers' Association, founded in 1890 by Mr. J. vanSomerén Pope, M.A., Director of Public Instruction, Burma, is now in a condition calculated to excite the envy of kindred institutions in India. Whatever the practice may be, the ideal of the Burmese Association is decidedly lofty. Its chief objects are,—(1) to hold meetings at stated times for the purpose of bringing together Teachers and those interested in Education for the discussion of matters bearing on the Theory and Practice of Education; (2) to illustrate by practical class work the best methods of teaching; (3) to encourage the production and publication of such literature as will tend to advance the cause of education; and (4) to form a Library of permanent and periodical literature bearing on education. The Association is open to all managers and teachers and others interested in education. It derives its funds from a

Government grant of Rs. 100 a month, and the Schools in Rangoon subscribe about Rs. 50 or Rs. 60. The Society has lately engaged new Rooms, and started a Library in which all its books, maps, and diagrams are deposited. Publishers in England send out to the Association regularly every new thing that they bring out. Quite recently the Association received from Messrs. W. and A. K. JOHNSTON, the well-known publishers, a large consignment of their newest educational works. We have no doubt that similar courtesy would be shewn to similar large Associations of Teachers in India if the Secretaries communicated with the London Educational publishers. An Address, which we hope shortly to publish, was delivered last month before the Rangoon Association by the Director of Public Instruction, Burma.

* * *

The following interesting figures extracted from the new Calendar of the University of Madras for the year 1893-94, recently issued by Mr. G. Bickle, the Registrar, afford some food for reflection. The figures deal only with living graduates at present on the rolls, and are corrected up to 31st March 1893. On that date, out of 63 graduates who had obtained the Degree of Master of Arts, no less than 38 were Brahmins, and only one a Muhammadan. Of the 8 Masters of Laws, exactly half were Brahmins; while of the 496 Bachelors of Laws, as many as 361 were Brahmins, and only 5 Muhammadans. Out of a total of 2,965 Bachelors of Arts, fully 2,026 were Brahmins, and only 21 Muhammadans. Among 60 Bachelors of Engineering 41 were Brahmins, but we do not find a single Muhammadan name. Of the 37 Licentiates in Teaching, as many as 28 are Brahmins. It is only in Medicine and Surgery that the great caste shews weakness. Although Brahmins number only 14 out of the 92 Licentiates in Medicine and Surgery, yet they have 5 out of the 18 Bachelors of Medicine and Masters in Surgery. All this shews how readily the Brahmins can adapt themselves to altered circumstances, and goes a long way to prove that they will always be able to maintain their intellectual superiority under whatsoever system they may live.

THE BURMA UNIVERSITY.

By THE REV. JOHN E. MARKS, D. D.,

Principal, St. John's College, S. P. G., Rangoon.

In the opinion of very many of those who are engaged in education in Burma, the time has arrived for the establishment of a separate University for this country. The necessity for such an Institution has been felt for some time past. But the recent action of the Calcutta University authorities has accentuated the want, and determined the Executive Committee of the Educational Syndicate, on the motion of the the Director of Public Instruction, Burma, to take measures to render this Province in some degree independent of Calcutta, and to establish a local University. In defiance of protests from the Government of Burma and from our Director of Public Instruction, the Calcutta University resolved to restrict all its examinations to one centre for this entire country. Upper and Lower Burma, Arracan, and Tenasserim, all must send their candidates to Rangoon. To every representation from officials and individuals, that this harsh measure would operate prejudicially to the spread of higher education, that it would interpose unnecessary obstacles and hinderances in places which had hitherto not sent up candidates, and discouragements to poorer candidates from distant parts,—that it involved great expense and inconvenience to candidates,—to all this and much more to the same effect, Calcutta University returned the curtest and most brusque of replies. It had given its decision, which like the Medo-Persian laws was unalterable. It was not difficult to read between the lines of their decision. It meant "We are masters of the situation. Calcutta can do without Burma, whose only resource is to smile and submit or to 'go secess.'" It was by no means the first time that we had been given to understand that Calcutta looked upon Burma as a poor relation, to be treated with the scantiest of courtesy. Directors of Public Instruction, Principals of Schools, and private individuals had all told similar grievances; and to all, Calcutta had in effect said:—"That is our rule,—if you don't like it, you can leave it." As to considering whether there were any special-needs of Burma, amongst our polyglot people whether any modifications of the course were desirable, Calcutta scorned the idea! It was, for instance, thought by no means strange or incongruous, for Burma—that the Pali teacher should also be the Pali Examiner. It would do for Burma! And Burma meekly yielded in this as in so many other matters, until this last straw has broken—no—has made us determine to get rid of the whole incubus. It is manifest

that Calcutta does not want us. It is evident that we must have a Provincial University some time or other. Very many considerations point to the present moment as the proper time for this Institution.

The education of the various nationalities of Burma has engaged the attention of Government and of Missionary bodies, ever since the annexation in 1852-4.

Of course, at first, the attempts to teach according to Western ideas of method and of subjects were primitive and amusing. Pupils were paid to come to school, where they were taught for nothing. The excellent monastic system of Buddhist schools—so thoroughly well-adapted for the people—had pervaded the country for centuries. Under it, elementary education, amongst men and boys at least, was marvellously diffused. The people did not take very readily to Western methods, but had to be bribed and coaxed. Government set up its schools in Moulmein, Rangoon, and a few other places. The American Baptists devoted large funds and some of their best men and women to the work of education amongst the Burmese and Karens. This work received a severe check on the Report of a Commission sent from America, but it has gone on again with zeal, energy, and success, in every part of the country and amongst all the various races. The Roman Catholic Church has also from the first considered the education of the people, though chiefly of its own adherents, as a primary duty; and excellently well, with the work of Priests, Sisters, and Brothers of the Christian Schools, has it performed it. No pains have been spared by these devoted teachers to render their work that of real education. I well remember seeing the venerated Bishop Bigandet in one of the hottest days of the hot weather of 1860, sitting in a hot crowded class-room, teaching Burmese boys to read their own language.

The Church of England Society for the Propagation of the Gospel in Foreign Parts began its work (which has been mainly educational) in this country only 34 years ago. It has besides this College, Schools in Puzoondoung, Kemmendine, Prome, Thayetmyo, Moulmein, Toungoo, Shwebo, Mandalay, and other places. Under the first two Chief Commissioners of British Burma, Sir Arthur Phayre and General Albert Fytche, every possible encouragement was given to Mission Schools, and we missionaries thought that the education of the country would pass mainly into our hands. And the people of the country, with that marvellous liberality and toleration which distinguishes real Buddhism, patronized and supported our Christian Schools, in no instance setting up rival Buddhist Schools. A notable example was set by that enlightened Monarch, Mindoon Min, to whom all Burmans looked with profound re-

gard. He invited me as a Christian Priest to his Capital, built for me a grand school, a Clergy House and a beautiful church (to which Queen Victoria gave the Font); and, when sending his own sons to be my pupils, requested that they might be taught Christianity, so that they might, when they came to years of discretion, know which religion was best.

But with the advent of Sir Ashley Eden (a Bishop's son) there was a great change. He would have a secular College in Rangoon, and secular Schools everywhere, and the encouragement to Mission Schools reduced to a minimum. The officiating Director of Public Instruction was a clergyman who had renounced his orders, and with the fervour of a convert was glad to back up Eden's secular policy. A scheme for a religionless High School was framed. It was to be established regardless of cost. The first assault was upon St. John's College, then only recently established. I was struggling in Mandalay, and the College was under-tutored. It was summoned to surrender itself to Government, to commit suicide, under pain of forcible extinction. "If you refuse to sell your buildings and site to Government," we were told, "your Grant-in-Aid will be reduced to one-half the first year, one-third the second year, and in the third year it will cease altogether, lest the Government by continuing its aid should be supporting a rival Institution to its own High School!" This name "rival institution", has stuck, and in the last twenty years has been but too often used. The Calcutta Committee of the S. P. G. were alarmed at this bluster. But I knew that our then Bishop, Dr. Milman, was not a man likely to be thus scared. I indignantly protested against the smallest concession. All the money for the purchase of the land and the erection of the buildings (save the Government Grant) had been raised here for that specific purpose, and it was not in the power of any committee to sell this College for secular purposes. The Bishop made a bold stand; he represented the case to the Government of India, who knew too well how strong Eden and his Director of Public Instruction were upon their weak points, and the order was rescinded. St. John's College escaped that danger. But with such Chief Commissioners as Sir Rivers Thompson, Sir Charles Aitchison and Sir Charles Bernard, we had better treatment. We might and did chafe at the unfair advantages which the Government bantling received, and of which we were deprived—of the lavish expenditure there and the niggardliness shewn to us, but we and all Missionaries knew that better times were in store for us.

Then Sir Charles Bernard bethought himself of a notable plan to reconcile all conflicting educational interests in the Province, and to weld all into one harmoniously working whole. The Departmental wolf

and the Missionary lamp were to lie down beside (*outside of*) each other. This plan was to gather together into one educational council representatives of all classes interested in the question. It was the Educational Syndicate of Lower Burma. Mr. Justice Jardine, the Judicial Commissioner, was the first President (and the office has passed to each succeeding Judicial Commissioner), and Bishop Bigandet, D.D., permanent Vice-President. The Director of Public Instruction; an Inspector of Schools; the Principal of the Rangoon College; the Senior Missionary, S. P. G.; the Senior Missionary of the American Baptists; the Persian Consul; the Government Advocate; a Bengali Lawyer; the Chief Engineer, P. W. D.; the Civil Surgeon; the Inspector-General of the Civil Medical Department, and others formed this body.

It took some time to ballast and balance itself. Its speeches were reported and were not unjustly called the only comic readings of the day. But perusing them now in the light of ten or twelve years' experience, we see how needful were those discussions, and what real good has come out of them. When the Syndicate assumed charge of the Rangoon College and affiliated Schools, and of the Bernard Free Library, it was felt that its constitution was too unwieldy for effective work. A change was made, and all actual duties were relegated to an annually elected Executive Committee of five members, beside the President and Vice-President. I have always thought that this number is too small. At the present time the Syndicate consists of 24 members, of whom 17 are Government officials, 4 are Christian clergymen, 3 are native gentlemen,—or 17 are Europeans, 4 Burmans, 1 Arracanese, and 2 natives of India. The Syndicate is now 12 years old. Speaking from personal experience (for, with a very short interval in 1890, I have been an active member from the first) I can honestly say, that its work has been done efficiently, economically, and with very great benefit to the country. Our numerous examinations have the confidence of the people; the schools and the Government educational interests have become in a marvellous manner blended; and, though principles have not been conceded, mutual concession and forbearance have become our rule.

But the Syndicate now feels that its very success is overwhelming it. The work is increasing by leaps and bounds. Examinations follow so closely on each other's heels, every year embracing more subjects and doubling the number of candidates, that the Executive Committee has to look the matter squarely in the face, and confess its constitution to be inadequate to the ever-increasing strain put upon it. Our founder, Sir Charles Bernard, and our first President, Mr. Justice Jardine, clearly foresaw to what the Syndicate would lead. The latter has watched our

development with affectionate and continued interest. While he saw us wasting our time and vigour upon internecine struggles, he aimed for unity as our real strength. That, through the excellent tact, great professional knowledge, and indomitable perseverance, of our present Director of Public Instruction, Mr. John vanSomeren Pope, we have attained. Everything points to the present juncture as the proper time when education should take a new departure, and we should have our own University, re-arranging the whole system which has notoriously outgrown the present plans. The action of the Calcutta University, as I have said, emphasizes this crisis, and points to the present time as specially designed for this change.

At its first proposal the plan seemed so natural and so appropriate, that I had great fears, which I did not hesitate to express, that the scheme would be unduly rushed with too little attention to details. A small Sub-Committee from the Syndicate, with one or two others, was formed, and, for the reason above stated, I joined it reluctantly, and was surprised at its apparent unanimity. But quite innocently, I introduced an element of discord and opposition by suggesting that Government should be asked to subsidize Missionary Colleges, or rather Colleges under Missionary management, as part of the plan. This I ventured to consider a *sine qua non*, in any scheme for a University. But this suggestion roused an opposition which will not soon be allayed. The great argument for the establishment of the University is that it will cost the country nothing—that the rearrangement of the Funds now at the disposal of the Syndicate will cover all expenses. But, if the scheme is to include the Grant-in-aid to Missionary Colleges, it seems to point to a reduction of the enormous grant at present monopolized by the Rangoon College, whose Principal, after my suggestion, executed a complete change of front, and now poses as the chief antagonist of the University. I do not blame him for trying to conserve the interests of the Institution over which he presides. Many others, perhaps I myself, would do the same; but I merely want to shew how and when the opposition, which has become so fast and furious, arose and gathered strength. At meetings of the Syndicate, the Principal has stated that he has no objection to the University *per se*, but he thinks our plan premature, and, gratuitously assuming that we must copy Indian Universities, objects, and proposes to turn his own College into a teaching University, with hostels for Christian and other pupils gathered round,—that is to say, he would cuddle the scheme to death under the pretext of loving it too well. The unmistakable language of the Rev. Dr. Cushing of the Baptist Mission College and myself could have left him in no doubt of our utter rejection of his plan.

Timeo Danaos, et dona ferentes. Prematurity is a very stale argument, and one that dulness, idleness, and self-interest always adduce. To postpone to "a more convenient season" is at any rate part of the tactics of eighteen centuries ago. I have heard the argument used against the amalgamation of Pegu, Tenasserim, and Arracan in 1861, against the establishment of the Recorder's Court, the Comptroller's Office, the Railways, the Flotilla, the annexation of Upper Burma. Every improvement in this country during the last 33 years has, to my knowledge, been effected in the teeth of the croakers of the old cry "Not yet."

Had Burma been an American Province, it would long ago have had its University with several affiliated Colleges. But then we should not have had what has been our hindrance here, the bulk of the educational expenditure lavished upon one College, and all others starved. It would amaze your readers if the financial history of Rangoon College could be written. It would, I believe, find no parallel in India, and yet this Institution now votes against the University scheme, because there are not more Colleges in the province! When once the Government monopoly ceases, Colleges will soon spring up, assured of justice from Government and the Examiners.

Another argument, if such it can be called, against our scheme is that we should lack gentlemen of attainment and culture sufficient for Examiners! Yet we have 64 Civil Servants, 5 M.A.'s in the Education Office, 11 English and 19 American Graduate clergy, 23 Graduates in Medicine, 10 R. E. officers, 72 Cooper's Hill or R. E. College officers, and these numbers are continually increasing. We might even engage gentlemen in Calcutta or Madras to take some of our Examinations, if need be.

As to the question of cost, Mr. Pope has shewn, and the Finance Department has acknowledged the correctness of his figures, that we shall not require any more public funds than the Government at present allows, together with fees and other sources of income.

That we should begin with few, would be greatly to our advantage. There is no doubt whatever that we should very soon have quite as many candidates as we could wish. Government, by raising the standard for admission to the public service, is creating a demand for University education, which will be permanent.

I have shewn the nature of the main opposition which our University scheme has encountered. It speaks for itself. The minor objections that University teaching is bad for boys, worse for girls and good for nobody, may be correct, but hardly needs discussion at present. At any rate they have no special force with regard to our projected University. Mr. Chan Toon, a native of Arracan, not greatly in touch with

the Burmans, but who distinguished himself at the Temple, has been converted from being a supporter to becoming an opponent of the scheme by the arguments of the Principal of the Rangoon College. But he had not studied his brief when he wrote his letter. He could not but acknowledge the evils which we pointed out; but he blundered by suggesting some less *costly* remedy, while his Principal ought to have told him that the question of cost was all in our favour. The best answer to his letter was the Public Meeting of the Arracanese—his countrymen—in Akyab, and their memorial in favour of a University. Similar meetings with similar results have been held at other centres; and amongst the educated natives the feeling that we ought to have educational autonomy is very strong.

I would regard with all respect the adverse opinion of Mr. Thirkell White, C.I.E., C.S., the present Commissioner of Mandalay. But that opinion, like the letter that contained it, bears evident marks of a hastily formed conclusion on insufficient data. I feel sure that a more careful and deliberate consideration of the whole question will greatly modify, if not entirely change, his views.

I can hardly approach with seriousness the topic of the *Rangoon Gazette's* opposition. In leader, letter, large and small paragraphs, it has run full tilt against our University, dragging irrelevant topics in by their heels, if only something damaging or derogatory to the scheme could be said. If not witty itself, it is the cause of wit in others. But I must praise its tolerance. It lets me laugh, and make other people laugh, through its own columns, at its egregious blunderings over the whole question. It has never taken the trouble to study the subject, or to master any of the details. It pronounces its obsequies once a week, and is annoyed that the embryo University will not go to *neigban* at the bidding of the Editor, or his henchman who does the small para. business. As a gentleman, high in the Civil Service here, wrote to me the other day,—“If your case for a University is not as strong as you might make it, the opposition is decidedly weak.”

Well, our carefully prepared scheme, with all accompanying documents, after a little annoying delay, has gone on to the local Government. It will in due course be laid before the Supreme Government and the Secretary of State. We have every confidence in the result. It will demand nothing more from the provincial or imperial funds. It will evoke local liberality. I have not hitherto troubled you with figures, but I subjoin just a few of those which make for our case. Statistics are dry reading, and educational statistics need many qualifications to render them intelligible to outsiders. But the following are irrefragable, and thoroughly accurate:—

Our University income	will be Rs. 18,800
" Expenditure	" " 14,750
	Balance ... Rs. 4,050
College and Collegiate School	Rs. 94,000
" Expenditure	" " 84,800
	Balance ... Rs. 9,200
Civil Service Commission	Rs. 14,300
" Expenditure	" " 13,100
	Balance ... Rs. 1,200
Total income	Rs. 14,450

And this will be continually increased.

Papils who have matriculated in Burma:—

1884	1885	1886	1887	1888	1889	1890	1891	1892	1893
15	11	20	33	28	13	23	33	26	71
No. of Schools in Lower Burma (1891-92) ... 6,148									
" " Upper " ... 5,860									
Total ... 12,108									
No. of Pupils in Lower Burma, (1891-92) 132,688									
" " Upper " ... 63,351									
Total... 196,039									

This is our case. It is satisfactory to us to feel that it is daily growing in public favour. We cannot expect vested interests to surrender at the first summons. We cannot hope to convince those who will not study the question, but content themselves with a shrug of the shoulders and a contemptuous "Oh, we want a good many things before that",—as if the University would stand in the way of any other improvement, or divert therefrom the needed funds. But to those who watch the development of education in this Province, its aspirations, the efforts of the Syndicate, the energetic Director, the Managers and the students, the arguments that we have used are all sufficient. With hardly a dissentient, they will say that a Burma University is needed and that it should be begun without loss of time.

That the Syndicate has so rapidly developed the educational forces of the country as to overpower itself and render a University a real necessity speaks volumes for those who have guided our deliberations and controlled our efforts. We have been favoured with gentlemen who

have brought to the office of President, which is inherent in that of Judicial Commissioner, conspicuous ability, great enthusiasm in the cause of education, geniality, and admirable tact. Mr. Justice Jardine, I have already mentioned. He is ardently in favour of the University scheme. So too, I believe is Mr. Meares. Mr. Justice Fulton gave the Syndicate the advantage of great experience in the Education Department, and it was under his régime that the University question was started. Our present President has written an admirable minute in favour of our plans, and he has in every way proved himself a worthy successor of those whose names will live in the educational history of this country.

THE VALUE OF LITERATURE IN MORAL TRAINING.

By CHARLES DE GARMO in *The New Education* (New York).

Has literature a value in moral training? The answer to this question depends upon two things: first, our idea of what constitutes moral training and, second, our notion of what constitutes literature. It is quite possible that when measured by either or both of these personal standards literature as a factor in moral training may be regarded as little more than an impertinence. Some of us lay the main stress in moral training upon inculcation of maxims of moral conduct and their enforcement by authority. We have first the maxims and discipline of the home, then those of the school, and then such as arise in the Church and State. Finally, the words *conscience* and *duty* are appealed to as internal obedience to the will of God manifested in His word. A one-sided theory of moral training such as this would find small use for literature or any other authoritative content of knowledge. Its motto is: "This is the law. Obey it, or suffer the consequences." This is a simple system, for it requires no insight into the development of motives, ideals, or dispositions. The schoolmaster has only to reveal the law and then enforce it. Nor need he vex himself about any refinements of method in moral education. He may calmly give his mind to sharpening the wits of his pupils, leaving it to whom it may concern to look further after their moral welfare.

There are those, on the other hand, who see little or no real truth in literature. They are for the most part matter-of-fact people who never recognize a truth unless it is dressed in homespun. To them fairy stories are lies, while the higher forms of literature are only fanciful devices for representing the unreal. To a man who sees no more truth in Lowell's "Vision of Sir Launfal" than in Baron Munchausen, litera-

ture is not likely to appeal as an important factor in moral training. Its more harmless forms might do to amuse the children, but it would be strange to suppose that it has any appreciable value as a moral force.

Few educational men will deny that proper authority well enforced is an indispensable factor in moral training, yet there are strong reasons for claiming that it is not the only one.

Even supposing authority to be well enforced, there is still a wide range of conduct in which the child may be bad without suffering the rigours of the law. He may, for instance, as a child, be harsh and cruel in his treatment of animals or other children. He may be greedy, surly, selfish, discontented; he may be obscene in his language, and a pollution to the whole neighbourhood. When he becomes a man, he may give way to one after another of a whole catalogue of vices; he may, for example, become a tyrannical husband and father, a worthless or injurious citizen; and yet from infancy to manhood never suffer seriously from the retributions of violated human law. It seems evident that the disposition of the child is an element in moral training that can never be ignored. While authority should make the child live up to standards that he himself may not yet have reached, instruction should at the same time be developing within him a right disposition. We may drive a child up to some of our own ideals, but we can only lead him to his own. Potent as well directed authority is in moral training, it may still exhaust all its devices, yet fail to touch the heart or disposition of the child.

The present paper assumes, therefore, that we need to change the emphasis somewhat in moral training, or at least add a new element. It is quite true that we now develop character in the schools, but we need to do it so that the results shall be somewhat different from what they are.

Perhaps, in an abstract sort of way, our pupils may be said to be fairly intelligent as to what is right and wrong in conduct, yet the present wide-spread interest in school ethics seems to indicate that we are not quite satisfied with an intellectual apprehension of moral relations. The special function of authority in its enforcement of rules of conduct lies in the fact that it tends to make a desired line of action habitual with the child. The idea of habit is necessarily associated with that of character, so that whatever means we may employ for the development of ideals, we shall still have to rely on authority to help in transforming them into moral habits. Habits alone, however, are not an armour of proof for the soul, for good ones may decay and bad ones grow. If the heart has never been warmed for a line of conduct, there is danger of a moral relapse as soon as the pressure of authority is with-

drawn. A widow's son may thus become a tower of strength and comfort to his mother, or a heart-breaking burden. The insufficiency of our present training seems to lie mostly in the feebleness of its effect upon the disposition of the pupil, and upon the formation of warmly conceived ideals. This being the case, we need to discover the best means of awakening a sympathetic interest in adequate ideals of conduct, and of securing a proper disposition toward them. There is a tendency just now to give the children systematic lessons on morals from little books on ethical instruction. I can but regard this as an inadequate method. It tends to a premature, abnormal self-consciousness on the part of the child. It fastens to a stick the flower that should grow from the stalk. However valuable introspection may be in the psychologist, it is of small account in the moral growth of the child. Food it is that nourishes, not reflections on hygiene; the same is true in the school-room. The matter of the daily lessons should be of such a character and so presented that it will furnish ample means of sustenance for the child's moral nature. Abstractions are no more nourishing to the soul than they are to the body. The chief thought, therefore, that I wish to offer for your consideration is that our main line of advance in moral training lies not so much in the inculcation of more maxims, or a more vigorous exercise of authority, as in the better utilization of the ethical content of the curriculum of studies, and especially of literature. It may be a strange thought to us that the ordinary subject-matter of secular instruction is regarded as having a high value in bringing about these ends. Yet I am persuaded that our surprise arises from the fact that we have not been in the habit of looking to such sources for any moral potency. If, however, we are willing to examine the content of these studies and at the same time reconstruct to some extent our own conception of the psychology of moral training, I am persuaded that we shall open up a new and fruitful field for the cultivation of the moral aspects of mind.

To influence a child's disposition favourably toward right moral purposes concretely, we must have a subject-matter of instruction that has a distinct ethical content, capable of easy apprehension, and of appealing strongly to the child's natural interest.

If through our instruction we can awaken his interest in moral ideals, and arouse his enthusiasm for them in their concrete shape, it seems evident that we shall enlist his active sympathy for certain desirable lines of thought to which otherwise his mind might have remained closed. Suppose, for illustration, the reading of a story, say, "Little Lord Fauntleroy", sets up a childish admiration for a manly little chap who always thought of others before he did of himself. It does not follow,

of course, that the reader will be able to throw off selfishness at once, but at any rate his disposition toward unselfishness has received a favourable impulse. The teacher or parent now finds an ally in the child's own mind. His understanding for certain moral relations has been quickened; this line of unselfish conduct is associated with a boy for whom admiration has been aroused; and after all who does not know that a boy seeks to imitate what in his eyes is big and manly? If a boy likes to swagger, brag, smoke, chew, or swear, this liking can usually be traced to some other boy whom he admires.

We shall see, I think, as we go on, that Literature is admirably adapted for fixing the attention of children to plain cases of right and wrong conduct, of leading them to unbiased moral judgments, and, most of all, of awakening their sympathetic admiration for worthy ideals.

No other subjects taught in the school are so rich in moral content as History and Literature, for these portray especially the exercise of the will, in which all morality inheres. History portrays the exercise of the will largely in its organized, institutional manifestations; Literature reveals it more in its individual forms. History is particularly valuable in developing the sentiment of patriotism, since it deals mostly with men in their relations to their country; but Literature has a much wider range, for it exhibits every phase of every moral idea. In the first place, not being hampered by limitations of time, place, or casual relations, it adapts itself perfectly to every grade of intelligence from the kindergarten to the university. It is equally unrestricted in its choice of subjects, being free to treat any phase of morality. Furthermore, it has one immense advantage in that it always deals with wholes. No good story ever needs a sequel, for it is all told. It is rounded up, closed, completed, whether its length is a volume or a paragraph. It is to this fact, that Literature deals with ethical wholes, that much of its adaptability to all classes of minds is due. Not being restricted to matters of fact, Literature is enabled to portray its lessons under the most variegated and pleasing forms. The imagination is always at its service, so that the most common-place truths may appear again and again with all the freshness of original creations.

What instrument for reaching the disposition and better moral judgment of the child could be more perfect than this of Literature with its complete range of moral ideals, its perfect adaptability to every age and state of mind, and its imaginative treatment of each topic as an ethical whole?

The fundamental ethical virtues are not numerous. The chief ones are: (1) truthfulness; (2) prudence; (3) good-will, with its various aspects, such as kindness, benevolence, charity, fidelity, goodness,

generosity; (4) regard for property and other legal rights; (5) requital for good or bad actions; and (6) the altruistic conception of promoting self through service to others. Over against this list of virtues we find the corresponding faults, such as lying; imprudence; ill-will and its variations, like cruelty, malevolence, hard-heartedness, treachery, selfishness; injustice and avarice; ingratitude and revenge; and finally the desire to benefit ourselves through injury of others. All these ideas are clearly portrayed in elementary literary forms and can be brought to the consciousness of the child in such a way that his mind will be enlisted on the right side.

As practical schoolmen we are interested in knowing how to select the literature most effective for ethical purposes, and in considering the most efficient methods of presentation. Taking up the second topic first, it is clear that for the first two or three years of school life our main methods of teaching Literature to children must be by narration and oral reading to them on the part of the teacher. When the pupils can understand by reading what they could grasp through narration, the latter may be gradually discontinued, though it will always possess a subtle personal element that reading can not constitute. We have now two efficient means at our disposal, viz., the class and outside individual reading. The school at this stage should, accordingly, be supplied with suitable material for class use, and with a small select library of approved books. In the high school the Reading Class may merge gradually into the Literature Class for the study of the masterpieces of English writers, while the reading matter of the library may take a more extended range. The means at our disposal then are, narration or oral reading by the teacher in early primary grades; class, supplementary, and individual, reading by the pupils in intermediate and grammar grades; and literary study and use of library for the high school.

But even after we are persuaded that literature furnishes a valuable means for moral training, much remains to be determined as to the character of that which is of most value for this purpose. I suppose one may say of all primitive literature, as of primitive life in general, that it emphasizes the principle of requital, of reward for right, and of retribution for wrong action. The Old Testament is a treasure-house of illustrations for this idea. The righteous are preserved even in the fiery furnace and the lions' den, while the wicked are slain, often directly at the hand of Jehovah. Job's friends cannot be persuaded that his afflictions do not spring from faults secretly committed. This doctrine of the return of the deed upon the doer is prominent in most child literature, having its origin in the primitive life of peoples.

The same doctrine has received modern recognition in Spencer's system of natural consequences, a popular theory of school government. Prof. Patten in his monograph on "Economic Causes of Moral Progress" has clearly shown the negative effect of this kind of moral training. So far as the requital of evil is concerned, it seeks rather to reduce the pleasures of evil-doing by showing its ultimate pain, than to build up positively a group of much greater pleasures which is made possible through the ejection of the strong, isolated pleasures that may be associated with wrong-doing. It is probable that all will recognize the danger of emphasizing the idea of direct retribution too much with the very young. In the first place, nurses often keep the minds of their charges in a state of terror for years by filling their imaginations with direful pictures of bears and goblins, which will come to devour them if bad. On the other hand, finding that vengeance does not inevitably pursue wrong-doing, they may become sceptical of its reality. A little boy reproved by his play-fellow for not saying his prayers said, "I am not going to pray to-night, I did not last night, and I shall not to-morrow night, and then if God Almighty does not kill me, I'm never going to pray again."

Yet, notwithstanding these dangers from exaggeration, a limited use of this negative element in literature is allowable, and even useful with children. We live so close to a system of natural rewards and punishments, and the demand for adequate requital for deeds is so spontaneous in our nature that any literature which should wholly ignore the idea of retribution would be defective. We may, therefore, I think, select a somewhat large amount of literature with this negative aspect from fairy tales, myths, fables, and folk-lore for use in the early grades. With judgment in the selection, we can give the child the joy he always feels in drinking at these primitive fountains, yet protect him from any morbid or unethical tendencies. Nor should we forget in this connexion, that it is of considerable advantage for a human being to pass through important epochs of human experience in imagination. By so doing he may hit upon ideals toward which to work, that might not otherwise have occurred to him; or seeing a deed in its whole round of consequences, what otherwise might have seemed desirable may lose its charm or even become repulsive.

On the other hand, however, I am persuaded that ideals are formed and the heart warmed for them much more efficiently through the positive phases of literature. Few children are allured or scared into permanent goodness. Instead, therefore, of laying so much emphasis on the reduction of evil-doing through the threat of future punishment, it seems to me we should lay more stress upon the possibility of enjoying a much larger group of pleasures by resisting the temptation to

enjoy the strong, but isolated ones that may arise temporarily from wrong-doing. Miss Harrison tells us of a little miss who came to the kindergarten dressed in silks and spangles, and whose pride at first kept her from entering into a game with the other children. The boys were to be men out for their day's work and the girls were to be housekeepers for them, preparing dinner while the boys worked. This little girl exclaimed in some disdain that her mamma did not work in the kitchen and that she should not. The teacher allowed her to remain ignored in her corner, and appointed another child to play the part. The next day, however, she gave up this selfish enjoyment in order to participate in a much larger group of pleasures of a social nature, and she no longer objected to cooking a dinner, at least in imagination, for plain Tommie. Such a surrender of an isolated and unworthy satisfaction for a larger group of more wholesome pleasures was worth much more for that child's character than a lecture on the sin of pride would have been.

Not denying, therefore, all moral potency to the great body of classical literature that emphasizes the negative side of conduct so much, I wish to urge the evident fact that a body of literature may be selected for elementary and high schools which shall lead the child according to his growing strength to appreciate and to desire more and more a progressive series of groups of social pleasures whose combined attractiveness is so great that the isolated pleasures growing out of sensuousness, selfishness, and pride shall be forgotten or easily discarded.

Such a systematic arrangement of literary matter would exhibit all the chief phases of good and evil, beginning with the simplest situations in which a small group of pleasures should outweigh the immediate satisfaction associated with a wrong action; and advancing to larger and larger groups, until all the great phases of organized society were brought in. At the bottom of such a scale I should place the fable, which emphasizes the difference between a long-sighted and a short-sighted selfishness, yet does not go beyond prudential motives. Such maxims as "Honesty is the best policy", spring from the teachings of the fable. This is a purely natural or economic standpoint, in which retribution or reward follow as natural consequents. Do not parade in a lion's skin lest people find out you are an ass. The fable of the Sun and the Wind shows that success comes with gentleness rather than with violence. If a man is prudent, brave, self-reliant, modest, unselfish, he will succeed better than he will if he gives way to the opposite faults. The lesson of the fable seems to be that virtue will pay a larger dividend than vice. An excellent discussion of this topic is found in Felix Adler's "Moral Instruction of Children."

Next above this utilitarian stage of literature I place folk stories and fairy tales. They develop a much richer imaginative life than the fable; and, though containing much of the primitive idea of retribution as an inevitable consequence of evil-doing, they yet contain a much larger positive element, for ethical ideas are now presented as moral ends, while complementary groups of pleasures tend to displace the temptation to wrong. As Mr. Adler points out, the Märchen, or fairy tale, is especially adapted to bring children into close sympathetic communion with the world of nature. To the child whose body constitutes the *ego*, and to whom motion apparently self-impelled is the sign of life, what can be more natural than to regard animals as human beings in disguise? If now the story develops a sympathetic disposition in the child for all animals, there is much less chance of subsequent cruelty and insensibility toward them. The story of "Snow-white and Red-rose", who entertain a black bear that afterwards turns out to be a prince in disguise, begins the same sort of training for the disposition that is contained in a special form in the story entitled "Black Beauty." Who can tell how much this book alone has done in making men mindful of the useless sufferings inflicted upon this, the noblest of their friends among the animals? The worthy fairy tale also engenders sensibility toward many beautiful ideals. If allowed to have its true influence it will often shed a sort of halo over the sorriest physical conditions, giving the strength to endure to many a tortured little soul like Mrs. Burnett's "Sara Crewe."

Leaving the realm of the fairy tales, we have a vast field of imaginative literature having a widely varying content yet portraying for the most part the relations between people simply as individuals. "Little Lord Fauntleroy" is a case in point. By rejecting selfishness this little fellow enjoys a wide circle of pleasures from which he would otherwise be largely shut off. "Robinson Crusoe" develops the industrial instincts of the child, who is as much interested in the making of pottery as he is in the foot-print on the sand. It takes my boys two or three years to pass through this stage, in which they seek to do all that Robinson did. The "Arabian Nights" have no special ethical content, yet they shadow forth in the Oriental imagination what we may now easily bring to pass. Aladdin rubbed his lamp and the genii appeared and transported him through the air to distant places. There was one Aladdin then: now every man may be an Aladdin. We need but to reach the hand into the pocket, take out the modern lamp that we call money, and still more powerful spirits will transport us rapidly across the continent in a palace car. "The Seven Little Sisters," by Jane Andrews, gives the child his primary lesson in cosmopolitanism.

Among the books that develop the hero spirit are the Grecian classics which show up courage as an individual trait, while such books as "Tom Brown at Rugby," "Tom Brown at Oxford," and Farrar's "St. Winifred" give ample opportunity for the young to come face to face with manliness in every form, and in such a way that the readers' sympathies are almost sure to be on the right side.

When we come to the manifold relations in which the individual stands to the home, we have also a wide range of literature. Indian stories of the right kind show the defence of the home against the savage. In Cooper the hero is a white man who has learned all the skill and strategy of the savage, and who enlists the best of the Indians on the right side. In Louisa M. Alcott's "Little Women", we see how the complementary home pleasures far outweigh the satisfaction that comes from any form of selfishness, so that the wise mother helps all her daughters to master their faults that they may live in accordance with the higher thought. In a similar way, stories of the sea picture the individual braving every sort of danger for the good of the ship, the little community in which he lives. It is a primitive form of patriotism, familiarizing the boy with the idea that the noblest thing, after all, is to serve a worthy cause. Such authors as Scott form an easy transition to the highest forms of institutional literature in which the individual enters into the most manifold relations with the social world, finding his true self in home, church, state, and society. Shakspeare is, of course, our greatest institutional dramatist. In his works we have a picture of all the chief relations, good and bad, in which a man can stand to his fellows in their organized capacity. As a rule, Shakspeare's treatment of the collision between individuals and social or political institutions is ethically sound, though in the tragedies the return of the deed upon the doer often reminds us of ancient doctrines of retribution. In the comedies, however, the principle of grace has full dominion.

Recapitulating now the doctrines of this paper, we find them to be as follows: (1) The inculcation of maxims and the enforcement of authority constitute but one factor in moral training, the latter having the establishment of right habits as its chief function. (2) It is of especial importance in moral education that a right attitude of mind or permanent right disposition toward moral ideas should be secured, and this can best be done through the sympathetic interest of the child for conduct in such a way as to win the sympathetic interest of the child for the right, causing him to pass unbiased moral judgments and to conceive higher moral ideals. (3) Literature is, perhaps, our most potent means of securing these ends, since it presents under imaginative forms and in

ethical wholes the entire range of moral situation and is, moreover, perfectly adapted to every stage of intellect and cast of mind. (4) The negative or retributive side of literature, though granted a place, is not to be emphasized so much as the positive or social side, since it is, in general, better for the mind to renounce evil for the sake of higher ideals and the unalloyed pleasures they bring than to forego it from the fear of punishment. (5) Finally, if literature is to exercise its best influence on the minds and hearts of children, we need to select a large amount of the positive kind which helps the child to discard the lower, isolated pleasures connected with a wrong or selfish act, for a higher complement of enjoyments associated with a worthy line of conduct. In this way the heart is warmed for the good rather than terrified at the results of the bad. The works named in this connexion are to be regarded merely as types and illustrations. A full course of literature of this kind is still to be arranged by those who believe in the idea, and who have daily access to the children.

TEACHING AS A PROFESSION.

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One can scarcely look into an educational journal or spend an hour in an educational conference without meeting this proposition in one form or another. It is one of the most promising signs of the times in an era that is witnessing a manifest awakening of educational thought and an apparent advance along the different lines of educational progress. It is promising, in that it indicates the necessity of broader scholarship, of improved methods of instruction, and of greater dignity and respect for the position which the instructor of youth occupies in the best thought and opinion of the country.

But it is as yet only a promising sign. You will perhaps challenge the remark that any real advance in this direction is as yet scarcely appreciable, but still I will venture to make it. It has been so easy to gain the right to teach, the regulations governing employment have been so exceedingly lax, the Normal schools have been so few in number and so inadequately equipped, and where there have been Normal schools they have had to do so much elementary and so little professional work, and their graduates have constituted so small a part of the whole number of teachers, and the teaching force changes so frequently, that the movement toward a teaching profession can scarcely be said to have advanced beyond the stage of acknowledging that we have none, and asserting that we should have,

The assertion is being stated in every conceivable form. It is served up warm and then cold; it is roasted and broiled and boiled and fried; it comes on in salads and croquettes and hashes and sandwiches, and in all the other ways in which economical housewives are accustomed to beguile their finical lords and obstreperous children into final disposition of such table supplies as do not yield gracefully to the first preparation and the first assault. But it is the same old assertion all the time. We ought to have a teaching profession because we ought to have a teaching profession. A good mother tells her young hopeful that he must be good because it is so good to be good; he must not be naughty because it is so naughty to be naughty. So, we must have a teaching profession because we ought to have a teaching profession.

Affirming all that is said, hailing it as a bright omen of the future, is it not time to analyze the subject and inquire what specific and detailed steps must be taken in order to build up a profession of teachers?

WHAT IS MEANT BY A TEACHING PROFESSION?

We Americans have a recklessly loose way of using the mother tongue. In word and phrase, we attempt to dignify things beyond justification. As common as this fault is, it is doubtful if any words of the language are used more thoughtlessly than "professor" and "profession." Indeed it must be admitted that there is dictionary authority for very great flexibility, elasticity, and license in the use of these words. But common usage goes much further than the dictionaries authorize. A man in almost every vocation in life, from the president of a university to the man who trains horses or treats corns, is styled a "professor." The school-master, the illusionist, the dancing master, and the soap-peddler, are all "professors." The other day a convict murderer across the lake upon the eve of his execution referred to the hangman as the "professor." Occasionally one, with more audacity than the rest, even insists upon applying the term to Superintendents. And the word "profession," as applied to individuals associated in the same employment, is likewise subjected to ill-usage. Its spreading and covering qualities are remarkable. Originally confined to theology, medicine, and law, it is now extended to music and painting and sculpture and literature, to architecture, engineering, journalism, to all the intellectual employments and the higher arts, and much more loosely to nearly all of the vocations of life. We continually hear of the "profession of arms," of professional base-ball players and horse jockeys and burnt cork artists. To-morrow we are likely to hear of professional bakers and barbers and plumbers and tailors.

Amid all this confusion, it becomes necessary to define what we mean by a "teaching profession." May we not draw the line between professional and non-professional employments along the points where results cease to be produced by the mind, and begin to be produced by the hand, along the points which divide intellectual from manual effort, the points where originality ends and mere copying or reproduction begins? Used either to signify a particular vocation or an association of persons engaged in that vocation, is it not safe to say that the term "profession" is only properly used in reference to such intellectual labour as may be performed by a trained and disciplined mind, which can operate upon its own motion and so add to the world's general fund of original thought, and which in addition to this is specially equipped and prepared for a particular field of intellectual activity? Then before teaching can fairly be said to be a professional employment, it must be carried on, not by amateurs, not by copyists, but by trained and disciplined original thinkers, especially qualified for transmitting instruction; and before an association of teachers can be said to constitute a profession they must not only be individually possessed of the qualities necessarily incident to such employment, but they must be devoted to it as well, and collectively they must be hedged about by the conditions and safeguards which gain for the entire body the esteem and respect of the people.

BASES OF THE PROFESSIONS.

It may be said at the outset that the world exacts broad scholarship on the part of the professions. A young man may, by service in a law office, become able to carry on the routine work of the office in a mechanical way, but that does not constitute him a lawyer. Another may learn the obvious qualities of drugs, but that will not make a physician of him. Still another may learn the catch-words and phrases common among engineers, and yet never become an engineer. It is unfortunately true that such persons do wedge their way into the professions, but they do not constitute the professions any more than cooks and butlers make an army, or runners and heelers make a political party. Professional men and women must know much more than the common catch-words and phrases or the things technically appertaining to their profession. Indeed, before they know those things at all, they are found to possess the qualities of mind and have those qualities under such training and control that they may turn them into whatever channels of mental activity they wish and be able to produce results and accomplish things. Intellectual vigour, strong enough and broad enough for fair competition with the world's advancing thought, no matter on what thoroughfare it may

be travelling or at what cross-roads it may be met, is the necessary foundation of all of the learned professions. The educated world recognizes and observes this principle. Prussia requires her intending lawyers to complete their course in the *gymnasium*, which extends from the age of nine to eighteen or twenty, and covers Latin and Greek, mathematics and natural science, history and geography, the mother tongue, and at least one other modern language, before they begin to study law. This, it will be seen, is about equivalent to the course covered in our good high schools and academies, together with, perhaps, half of the college course. In France, the prospective law student must be a bachelor of letters, which is nearly equivalent to our bachelor of arts. In England, before any one can be entered as a law student, he must have a university degree or must pass a preliminary examination in English composition, arithmetic, geography, history of England, elementary Latin, together with two languages which he may select from the following five, viz., Greek, French, German, Spanish and Italian. Then, if the candidate passes, he must bind himself to serve as clerk to a solicitor for five years. If he has taken a degree at a university, he need serve but three years. In the middle of his clerkship period he must pass a rigid intermediate examination, and at its close a much more severe final examination. The conditions for entrance to the other professions in these countries are scarcely less exacting. The avenues to the professions are now coming to be more closely guarded in our American States. We cannot take time to inquire just what steps have been taken in each of the States. In the State of New York a statute was passed in 1871 directing the court of last resort to prescribe a rule governing admissions to the bar, and the court requires that before any person shall enter upon a law clerkship he shall be a graduate of a college or university or pass such examination as shall be required, in the elementary branches, by the Regents of the University of the State. By a statute of last year substantially the same rule is applied to intending medical students. While this is not going so far as the authorities in Europe go, it recognizes the principle that the law-making power should control the avenues to the professions; it declares that a liberal preliminary education should precede special training for the professions, and it points out that the extent of this will be enlarged as the population becomes more dense and educational advantages are multiplied and improved.

The logical deduction from this is that a teaching profession cannot be established on a basis which only covers the work of the common schools. The mere knowledge that is to be conveyed to the child is not all that is required on the part of the teacher. A teaching profession will be controlled by the same inexorable laws as hedge about the other

professions. In advance of professional training there must be a scholarship foundation, adequate in extent, and sufficiently well laid to place individual teachers, not a few, but all of them, on an equal footing and in comfortable relations with ministers and physicians, and architects and engineers, and which will make sure that the mental equipment of the collective body is at no disadvantage in comparison with that of the entire body of persons composing the other professions.

Experience and observation convince me that there is no other way of securing a qualified and devoted teaching force so effectively as by Normal Schools or pedagogical classes in the colleges and secondary schools. It would be absurd to say that such training is a condition precedent to all strong teaching, that one cannot gain the professional work and acquire the spirit of a true teacher except in these professional schools. There are persons who are natural teachers. There are more who absorb the professional spirit easily from only the slightest contact with those who possess it. But these are unfortunately few in comparison with the whole mass. The overwhelming number need a comprehensive and intelligently laid out course of instruction, and constant intercourse with trained teachers and with other students in a professional atmosphere. Experience, home reading, institutes, circles and lectures, serve to keep teachers at the front of educational activity, but for the purpose of making teachers they cannot take the place of a regular course in a professional training school for teachers, which is such not only in the name, but as much in fact, as the medical and law and theological schools are professional training schools for those established professions.—*Educational Gazette*.

UNIVERSITY EXTENSION.

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I.—HISTORY OF THE ENGLISH MOVEMENT.

Every new movement brings with it its own nomenclature, so that when one finds a new set of terms gaining currency, it may be reasonably inferred that a new movement has come to challenge attention and to seek favour at the hands of an ever-eager public.

To-day, "University Extension," "Extension Lecturer," "Class," "Syllabus," "Local Centre," and kindred terms are familiar to every reader, and in many places are household words

Let us seek to know the history of the rise, progress and purpose of the movement that occasioned this new educational nomenclature.

In 1845 the Hebdomadal Board of Oxford University, England, was petitioned by a large number of distinguished men, among them Lords Sandon, Carnarvon, Westminster and Ashley, and Mr. Gladstone, Sir Thomas Acland, Mr. Sidney Herbert, Mr. Samuel Wilberforce (afterwards Bishop of Oxford), and Mr. Tait (the late Archbishop of Canterbury), to adopt measures for the admission of the poorer classes to the university. This petition obtains its force from the fact that the common classes of England, those educated in elementary schools, representing approximately eighty-five per cent. of the population furnish even at present, only about one per cent. of the students of the universities. This startling condition also warranted the petitioners in assuming that no adequate proportion of these poorer youths could, under any concessions of the university authorities, hope to receive at the universities themselves a higher education; hence, they also advised that some action should be taken that would, in the words subsequently used by Dr. Pusey, "enable the university to extend its benefits to talented and well-conditioned young men, however born, provided they shall be prepared to benefit by its education."

In 1850 seven distinct schemes for extending university teaching were considered by the Oxford Commissioners, none of which had special reference to the university extension of to-day, excepting the seventh, which asked that the university provide funds for the establishment of professional chairs in Birmingham and Manchester.

In 1846, Mr. John Owens, of Manchester, bequeathed £96,000 sterling for the founding of a college in his native city, which college, the *Manchester Guardian* of August 6, 1846, stated, was founded by Mr. Owens "for the purpose of affording to youths of the age of fourteen and upwards instruction in the branches of education taught at the English universities, free from the religious tests, which limit the extension of university education."

Influenced, no doubt, by this act of Mr. Owens, Mr. Sewell, Fellow and Senior Tutor of Exeter College, proposed the above seventh plan in a tract entitled "Suggestions for the Extension of the University submitted to the Rev. the Vice-Chancellor, by William Sewell, B. D., Oxford, 1850."

In this tract occur the now familiar words, "though it may be impossible to bring the masses requiring education to the university, may it not be possible to carry the university to them?" Then follows a scheme for the gradual extension of professional teaching through the

whole island, thus making the universities what they ought to be, "the great centres and springs of education throughout the country." They would thus command the sympathy and affection of the nation at large "without sacrificing or compromising any principle which they are bound to maintain."

In 1855 Lord Arthur Hervey (now Bishop of Bath and Wells), in a pamphlet entitled "A Suggestion for Supplying Literary, Scientific and Mechanical Institutes of Great Britain and Ireland, with Lectures from the Universities" recognized the growing desire of the industrial classes for intellectual improvement, and urged that, inasmuch as these institutes arrange for lectures, these lectures should be connected and definite; in other words, should be changed from a popular to a scientific basis; and that the university professors should take direct control of the movement.

It will be noted that these movements at Oxford were in two respects significant: (1) they recognized the importance and need of enlarging the range of University work; and (2) they recognized the fact that this is only practical, by taking the University, in some aspects at least, to the people rather than by urging the people to come to the university. The justification for this is found in the practical conditions of the people, conditions which, however unfortunate, must nevertheless be recognized. The great mass of the people have neither the time, nor the money to attend an extended course of study at the university, nor can the universities hope by means of endowments and state aid to offer such inducements as would ideally or even largely meet these requirements. Then, too, men and women upon whom rest the responsibilities of home and society, to whom the university can under no circumstances offer sufficient inducements to warrant resident study, but to whom university teaching at home would come as a message of love and cheer and enlightenment, would find in this movement the conditions necessary to their own uplift and to the rapid attainment in society at large, of such a higher standard of life as increased educational facilities to this substantial class in society would ensure.

Almost simultaneously with this Oxford movement, the London Society of Arts, in 1852, formed a Union of Mechanics' Institutes, which union affiliated about 300 of these organizations. Two years later the society began a series of examinations for the purpose of awarding certificates of competency to those who passed the examination with credit. This movement was soon (1855) extended to "a scheme for the examination of middle-class schools in the west of England." This examination was conducted by a committee composed of eminent men among

whom were Prof. Max Müller, Mr. (now Sir Thomas) Ackland, Mr. (now Sir Henry) Ackland, Rev. F. Temple (now Bishop of London) and Mr. J. Bowstead, one of Her Majesty's Inspectors of Schools. A prize was offered. The examination was held in June 1857, and was pronounced by Mr. Temple "as the first step towards improvement of middle-class education." This was followed by many other examinations of a similar character, all of which were so successful as to cause Mr. Temple in his report of them to write "the intellectual life of the people is pushing forth vigorous shoots in various directions."

Mr. Thomas Ackland, as Secretary of this Board of Examiners, used the success and value of these examinations as an argument in urging the universities to take the exclusive charge of these examinations. He urged this for a two-fold reason—(1) because it would strengthen the movement among the people, and (2) it would open for the universities "a career of almost unbounded usefulness."

Thus began the famous system of "Local Examinations" which to this day has been so prominent a feature of the English middle-class education. Oxford first and then Cambridge adopted the system. Under their direction the system advanced in several essential directions: 1. a wider range of branches of study was recognized; 2. girls were examined as well as boys; 3. more advanced students were admitted for examination; and 4, the essentially valuable step, under the progressive leadership of Prof. Stuart, who is justly called the father of modern university extension, of making the machinery of local examinations available for the purpose of *local lecturers*, was taken.

In 1867 Prof. Stuart reluctantly consented to give a course of lectures to an association of ladies in the north of England on the "art of teaching." This course of lectures was the first attempt at anything like sequence in the work, and was given at Leeds, Manchester, Liverpool and Sheffield to *women only*.

When one remembers how few opportunities were, even as late as 1867, afforded for the higher education of women, the significance of this movement is better appreciated. Dr. Sharpless in his *English Education* says "there is not much to write on the subject of secondary education for girls. The grammar schools of the sixteenth century have never been open to them. . . . Private schools have made and still make nearly all the provisions for their intermediate education." It need scarcely be added that not until 1872 was any organized provision made for any education for girls above the grammar grade.

Prof. Stuart's courses of lectures to women, may then be regarded as the real origin of our present University Extension System. In these he first introduced the *syllabus* and the *weekly exercises*, features

that still constitute an essential part of the system. The syllabus he derived from the work of Prof. Ferrier of St. Andrews, and the weekly exercises were devised as a substitute for the embarrassing experience of orally questioning the class. In the same year Prof. Stuart delivered a course of lectures to the *workmen* at the Crewe Railway works. This was followed by a course to the Equitable Pioneers' Society at Rochdale. In this course "*the class*" was devised and successfully carried out.

The successful introduction of *courses* of lectures to audiences of *women* and *workmen*, the practical value of the *syllabus*, *class* and *weekly exercises*, the popularity and growing value of local examinations under the direction of university professors, and, perhaps, more than anything else the adoption in 1870 of the Elementary Education Act, an Act which widened the sphere of elementary education and which, thereby, would largely increase the class who would demand higher education in some form distinct from residence at the great seats of learning, all combined to point to the importance of central organization for the purpose of carrying on this work in a systematic way. Accordingly Prof. Stuart in November, 1871, addressed a letter to Cambridge University urging upon it the importance and duty of assuming the responsibility of carrying "the benefits of the university through the country."

At last Cambridge had the opportunity that Mr. Sewell twenty years before had presented unsuccessfully to Oxford. The letter of Prof. Stuart was supplemented by "a shower of memorials," all of which were considered by a Syndicate appointed by the university in 1872. This Syndicate the following year approved the plan and, as Mr. Sadler says, "university extension became an official fact*." In 1876 London University organized an extension department, and two years later Oxford followed. These three great centres were thus organized and have since had continued and successful careers.

It may be well to note that these extension societies exerted a controlling influence in founding a number of colleges through the realm: notably, Yorkshire College at Leeds in 1877, Mason College at Birmingham in 1875, University College at Bristol in 1876, University College at Liverpool in 1878, Firth College at Sheffield in 1879, and University College, Nottingham, 1881.

In 1885 Oxford in order to increase its number of centres, reduced the course of lectures from twelve to six and inaugurated the system of "Travelling Libraries," containing books of reference bearing on the course of lectures. In 1888 Oxford began the system of "Summer Meetings," which gives a four years' course of studies in sequence at

*University Extension: Past, Present and Future, P. 26.

the university, where the pupils have access to libraries, collections, and museums; and where courses of lectures are given by resident professors, who, though friendly to the work, are prevented by their university duties from taking any active part in the work as travelling lecturers.

In 1890-1 Oxford gave 192 courses; Cambridge, 135; London, 130. These courses presented 4,408 lectures on a wide range of university studies, and fully 45,000 students, exclusive of the 1,100 members of the Oxford Summer Meeting, attended these lectures. The growth since 1886 may be inferred from the Oxford work alone, which may be best shown by the following table:

Oxford Movement.

	1886-7	1887-8	1888-9	1889-90	1890-1	1891-2
No. Courses, ...	67	82	109	148	192	393
No Centres, ...	50	52	82	109	146	279
Attendance, ...	9,908	13,036	14,357	17,901	20,248	27,969
Period of study, (weeks,) ...	7½	8½	9½	10½	12½	14½

The Rev. Hudson Shaw, of Oxford, England, now engaged under the auspices of the American Society for the Extension of University Teaching, in a recent address stated that in 1892-3 fully 80,000 students will receive instruction in the English centres.

The Local Taxation Act of 1890, allowing county or borough councils to appropriate part, or all, of their share of the residue of the new tax on spirits (*i. e.*, after deducting for police superannuation) to educational purposes, will allow, under the Technical Instruction Act of 1889, these councils to appropriate money for university extension lectures in physics, mechanics, electricity, chemistry, physiology, hygiene, natural philosophy, botany, geology, mineralogy, biology and kindred topics. The amount of this fund available in 1892-3 is about £743,200 sterling.

Already many councils have acted favourably, and the outlook for financial support for the rapid growth of the movement is thus practically assured.

Briefly this is the history of the development of university extension in England, a development in fact and not in name; for the student of this movement is impressed at every point with the fact that university extension is not a newly-hatched scheme, not a dream of visionary men suddenly forced upon public attention and as suddenly to subside; but that it is a clearly defined growth, paralleled by defined social, economic and educational advances, influenced by these and in turn influencing these, so that it may be justly claimed that it is an integral and essential factor in the progress of the people. That fully twenty years of steady, though at times halting progress, has been

followed in the past decade of years by a marvellous growth, shows that university extension has secured a definite position in the educational system and is destined to occupy from year to year a still higher place among recognized educational agencies.

When one remembers that the increase of attendance at our colleges and universities is only five-eighths as rapid as the increase in population, and that the ratio of people needing and demanding higher education is constantly increasing, the sphere of university extension is clearly foreshadowed and its increasing usefulness definitely assured.

II. THE MOVEMENT IN AMERICA.

The English University Extension Movement is twenty years old. The American movement, as an organized system, is three years old. The English movement is fixed about three centres; Oxford, Cambridge and London. The American movement is spreading from ocean to ocean; the majority of the States having already distinct centres for the advancement of the work. England has 80,000 students. America has about 60,000. Why this phenomenal growth?

Why has America, in less than three years, achieved what England has attained at almost a generation's toil and effort? Shall we say it indicates the difference in the character of the two peoples? Is it Conservative England *versus* Aggressive America? Let us pause before we answer. The movement in England did not "burst full blossomed" on the stem of English education, and as such challenge the favour and adoption of Conservatism. It grew as the system of education for the masses grew. It developed as rapidly as other great reform movements for the people, and no faster. It was not a discovery, but a recognized and fostered necessity. In America, with our customary rush and highly exciting activities along a multitude of lines, we have not carefully scrutinized the variously changing educational activities and conditions of the past half-century. Every educational problem is still in an unsolved condition. Interest is divided and study is not concentrated upon any specific element.

The cautious, critical, and conservative Englishman saw the extension conditions grow from year to year and was prompt to fix in its proper place the system as soon as its completed evolution was made. The American school-men, on the other hand, gave but little study to the problems underlying such a system until their English brethren enabled them to see that America, unknown and unattended, had developed every condition for the rapid and general introduction of the system.

Just as there, so here, limitations at the Universities; partially educated labouring classes, hungering for intellectual food within reach; the universalizing of popular education; the increasingly smaller

ratio of people attending our higher educational institutions, and hence the constantly widening gap between the universities and the people; the newly developed economic, social, and political conditions;—all combined, have prepared this country for the rapid and general expansion of university thought and university spirit among the masses. This it seems to me is the rational explanation of the movement's sudden and successful introduction in America.

At the National Superintendents' Convention, at Boston, Feb. 22, 1893, President Eliot of Harvard, made the statement that reform in any system of education must begin at the top or at the bottom. In a monarchy an arbitrary adjustment from the university downward is usually and naturally sought. In a nation like ours, where the authority rests, not at a governmental centre, but locally with the people, reform cannot be arbitrarily enforced from any point. But the universities and colleges, from their commanding position for educational insight, may and should become the sources of wise agitation and judicious discussion of educational reforms.

University Extension is, *par excellence*, the movement to accomplish this desideratum. It is the first and only practical means for enabling the leaders in educational thought to reach the representatives of all phases of our educational development; and, what is more vital still, to reach the great masses of citizens themselves, and to present to them both directly, by means of discussions, and indirectly, by imparting to them fuller knowledge and higher culture, the conditions essential to their own intellectual advancement and to their own recognition and agitation of such reforms in our system of education as the highest wisdom of the best leaders may suggest.

The mission of university extension is, therefore, twofold,—educational and reformative. Educationally, as Mr. Moulton has wisely said, "the object of university extension is to make education a serious business of life. It distributes a complete educational ideal through the leisure time of a whole life," and aims to make every citizen regard education as one of his permanent interests. In a country like ours, in which these same citizens determine absolutely what shall and what shall not be the recognized educational activities, the significance of the movement is apparent to every candid mind.

As a reform measure, the movement, as already indicated, urges upon each citizen that it is just as much his interest that his neighbours shall be educated as that he himself should be educated. Doctor James, in his annual report to the Corporation of the American Society at Philadelphia, says, "No such opportunity has ever been afforded in all history

for preaching a sound educational doctrine to the masses, whether rich or poor, as the university extension movement has brought us." In England the results of this feature of the work have been already made manifest in a number of distinct educational reforms. In this country the same influences are producing similar results.

Aside from a few individual and unorganized lecture courses, the initial steps for the successful introduction of university extension in America were taken in February, 1890, in Philadelphia. At a meeting over which Provost Pepper of the University of Pennsylvania presided, it was decided to organize a society for the promotion of university extension work. The secretary of this society, Mr. George Henderson, was sent to England to study the movement and to secure, if possible, Mr. Richard Moulton, the most successful university extension organizer and lecturer. The mission was successful. The report of Mr. Henderson and the immediate and wide-spread support of the movement led to the formation of a national society—the American Society for the Extension of University Teaching—with headquarters at Philadelphia. Mr. Moulton was engaged to deliver courses of lectures and to assist in organizing local centres in America during the winter of 1890-1.

The success of this society was phenomenal. Its literature was sought for in every State. Its lectures were in constant and increasing demand. Its ability to direct and to organize the work on a sound pedagogical basis was taxed to the utmost. Its influence for educational reform was wide-spread and permanent. Great credit for the success of this movement is due to its president, Dr. Edmund J. James of the Wharton School of Finance and Economy, whose extensive knowledge of educational men and methods, whose thorough training and marvelous capacity for educational work, and whose matchless organizing abilities, strengthened and broadened the work in every direction. "It is not too much to say that every successful university extension experiment in this country owes a large debt of gratitude to this society," and, through it, to Doctor James.*

The American society, incorporated under the laws of Pennsylvania, is a guarantee for the permanency of this valuable work. It has published an extensive line of excellent literature on the subject. It issues regularly a magazine, *University Extension*, devoted to all phases of educational progress, especially to the movement whose name it bears. It has organized a national conference of workers in university extension to discuss subjects relating to the development of the movement. This

* Review of Reviews, January, '93, p. 702.

conference has twice met in Philadelphia, in December 1891, and December 1892. The published proceedings of these meetings form not only, as Mr. Sudler wisely said, "the high-water mark of extension literature," but also one of the most valuable contributions to current and advanced educational thought. Men from every part of the country attended and took part in these proceedings. Among these may be named Provost Pepper, Dr. W. T. Harris, Bishop Vincent, Rev. Dr. J. S. MacIntosh, President G. Stanley Hall, Mr. Melville Dewey, Bishop Leighton of Delaware, and about twenty-five college presidents, and several hundred professors and friends of higher education, from every part of the United States.

The society has also organized the University Extension Seminary for the training of extension lecturers. There are many excellent teachers in high schools and colleges who could find here advanced opportunities for a complete study of the German, English, and American systems of education, of the latest and best phases of pedagogy and psychology, and of the details of the system of university extension work. There is perhaps, no seminary of equal value to be found elsewhere. The instructors include such men as President James, Staff-Lecturers Devine and Rolfe, Doctors Patton and Fullerton, President Sharpless, President DeGarmo, Dr. W. T. Harris, Dr. Edward Brooks, Rev. Hudson W. Shaw, and other competent and skilful men.

Finally, the society has conducted, under its auspices, the largest number of lecture courses yet given in America. The following table will show the growth.

AMERICAN SOCIETY LECTURE COURSES.

	'90-1	'91-2	'92-3†
Number of Courses,*	43	120	
Number in Attendance,	10,000	25,000	

This American Society, in its report just published, proposes to continue the above features and, for next year, to make a definite advance in the line of sequence of courses. This makes necessary the establishment of an increased number of staff lectureships in order to provide the local centres with courses in sequence. Already the society has selected some of these men, and by the opening of the season '93-4, the systematic presentation of a definite order of subjects will be possible. It has also arranged for a summer meeting in July '93, at Philadelphia. This summer meeting will bring to an important centre those now enlisted in the work as lecturers, secretaries of centres, and members of local cen-

*A course comprises six or more weekly lectures in sequence.

†The season is only partly completed. The year will show substantial gains.

ties, together with all others who may desire to join in the work. The Oxford summer meeting has outgrown the capacity of the old university town, and the outlook for this meeting is equally promising.

Almost simultaneously with the organization of the American society, the State of New York took official action in preparing the way for the introduction of university extension as a special department of the University of the State. May 1, '91, the Legislature passed a law appropriating \$10,000 for the extension of university teaching. Mr. Melville-Jewey, secretary of the University, has done much to popularize and extend the work in New York. In '91-2, centres were formed in eleven cities. In '92-93, many more have been added. This is a distinct State movement, and as such is worthy of more careful study later on.

During '91-2, Brown University, under the direction of Professor W. H. Munroe, organized thirty-five courses of twelve lectures each, and the work this year is largely increased. This movement is technical. It aims to collect a class of from thirty to forty students of about equal ability and to direct in much the same way as the best class work in the university is done.

These three organizations are types of all the organizations as yet perfected. The movement has been organized largely on the model of the American Society, in almost every state. Among the most flourishing societies are those of Maine, Ohio, Indiana, University of Chicago, Louisville, Michigan, Wisconsin, Minnesota, Kansas, Iowa, California, and Toronto, Canada.

When one recalls that the movement is a growth of scarcely more than two years; that it has attracted to itself most of the leading educational institutions of the country, and many of the ablest exponents of higher education; that it has gathered to itself for higher study almost as many students as now attend our colleges and universities; that it has found from every class of society favour and support; that its outlook is increasingly encouraging; and that its work is being seriously considered for recognition by many of our leading institutions of learning, it is fair to reaffirm in the light of experience the prophesy of Dr. W. T. Harris that "it is evident that this enterprise is one of the most important undertaken in our century, since the establishment of the common public school,"* and again, by the same distinguished leader, "university extension seems to me to be one of the most important movements of our time".

* Proceedings of first National Conference at Philadelphia, p. 17.

MADRAS LOWER SECONDARY EXAMINATION.

As the provisions of the Notification now regulating the new Madras Lower Secondary Examination do not appear to be clearly understood, attention is drawn to the following points, communicated to us by Mr. E. H. Elliot, B.A., Secretary to the Madras Commissioner for the U. C. S. Examinations:—

(1) No text-books are prescribed for any of the subjects of the Lower Secondary Examination. The papers on Grammar and Language in all languages will be of a general nature.

(2) English can be brought up only as *First Language*. A concession is made, however, to Hindu and Mahomedan *female* candidates (not Native Christians), who *may*, if they choose, bring up English as their Second Language.

(3) Any of the Vernacular languages referred to in the Notification may also be brought up as *First Language*.

(4) No candidate bringing up a Vernacular language as his first language can bring up at the same examination another *Vernacular* language as his second language. In other words, no candidate can be examined in the same year in two *Vernacular* languages.

(5) A candidate may bring up a Vernacular as his first language and any of the following as his second:—Sanskrit, Persian, Arabic, Latin, Greek, French, German.

(6) A candidate who brings up English as his first language, may bring up, as his second, any of the vernaculars, or any of the other languages mentioned in (5).

(7) All candidates,—Hindus and Mahomedans included,—who bring up English as their first language, must take the paper on English Composition, on the first day from 2 to 3 p. m.

(8) The Vernacular papers on Grammar and Language, on Writing, and on Spelling are the same whether the language is brought up as First or as Second language.

(9) Candidates who bring up a Vernacular language as their first language, must take the paper on Vernacular Composition (2 to 3 p. m., on the second day), and not the paper on Translation.

(10) Candidates who bring up a Vernacular language as their second language, with English necessarily as their first language, must take the paper on translation from and into English (2 to 3 p. m., on the second day), and not the paper on Vernacular Composition.

(11) Candidates who bring up any of the other languages (Sanskrit, Persian, Arabic, Latin, Greek, French or German) as their

second language, must in their Translation paper (2 to 3 p. m. 5th day) translate from the language so brought up into their first language, whatever it may be, (English, or any of the Vernaculars), and *vice versa*.

(12) The papers on all non-language subjects (History, Geography, Arithmetic, &c.,) must be answered in the language brought up by candidates as their first language, that is to say, in English by those who bring up English as their first language; in the Vernaculars by those who bring up any of the Vernaculars as their *first language.

(13) Candidates who may already have passed in English, whether as First or as Second Language under the old Notification, and candidates who having passed in a Vernacular language, now come up in English to complete the number of subjects, must also answer the non-language papers in English.

(14) The examination in such of the optional subjects as are included in the Government Technical Examinations is not held in December along with the examination in the compulsory and other optional subjects, but is held separately under the Notification regulating the Government Technical Examinations. Candidates taking up any of these technical subjects as their optional subjects can appear only as candidates for the Elementary Technical Examinations at such times as these Examinations are held,—in April, that is, for certain subjects, in November, for others. In the applications for admission to the Lower Secondary Examination in December, these technical subjects should not be entered as the optional subjects brought up.

How to make pupils inattentive and destroy their interest in their studies forever, is shown in the following rule which is still in operation in some schools. "Preach and admonish at every opportunity, using old worn-out phrases if possible; keep up the same old routine from one year to the other; have the children learn by heart the greatest possible amount of rules, particularly grammar; choose such material as will never be of any use in after life; skip around from one thing to the other in life recitation; be tiresome; talk over the heads of the class; keep up an arbitrary discipline by so punishing, praising, and commanding that the children will never understand the reason for it; if you have a headache or are angry about the weather or anything else let the children suffer for it; talk about hope, patriotism, industry, and other abstract subjects, carefully avoiding all references to the experiences of the children." Other points will readily suggest themselves. Following that rule one cannot fail to make the children despise knowledge and long for the time when they will be free and away from the school and the schoolmaster.

* Erroneously printed "second" in the original notice.

MATHEMATICS.

[All communications for this section should have the word "Mathematics" on the cover, be written on paper of foolscap size and on one side of the paper only, and reach the Editor not later than the 20th of each month.]

1. The interval between two successive transits of the same star across the prime vertical was observed to be 4 hours, the declination of the star being $\tan^{-1}(\frac{1}{2})$. Find the latitude of the place of observation.

Let S, S' be the two positions of the same star on the prime vertical at two times.

Let λ be the latitude of the place.

HR the horizon, E, W the East and West points.

Z, the Zenith.

ZP = the complement of latitude
 $= 90^\circ - \lambda$.

PS = PS' = complement of declination (δ)
 $= 90^\circ - \delta$.

The spherical triangle PSS' is isosceles and PZ which is at right angles to the base SS', bisects it. Also the angle SPS' is bisected by PZ.

The angle SPS' is 4 hours or 60°

$\therefore$ the angle SPZ = 30° .

In the right angled triangle SPZ from circular parts we have

$$\sin\left(\frac{\pi}{2} - \text{SPZ}\right) = \tan\left(\frac{\pi}{2} - \text{PS}\right) \tan \text{PZ}.$$

$$\sin 60^\circ = \tan \delta \cot \lambda$$

$$\frac{\sqrt{3}}{2} = \frac{1}{2} \cot \lambda$$

$$\therefore \tan \lambda = \sqrt{3}$$

$$\text{or } \lambda = 30^\circ$$

5. Two concave spherical mirrors of equal radius r , are situated on the same axis, and have the same centre. A pencil of rays proceeding from the principal focus of one mirror is directly incident on the other, and is reflected backwards and forwards. Show that the n^{th} geometrical focus is distant $\sqrt{2(n+1)}$ from the centre.

We know that for reflection $\frac{1}{p} + \frac{1}{q_1} = \frac{2}{r}$ 1 A ——— P O ——— B

or $\frac{1}{q_1} = \frac{2}{r} - \frac{1}{p}$ where p is negative being measured to the left of O and $p = \frac{r}{2}$

$$\frac{1}{q_1} = \frac{2}{r} - \frac{2}{r} = \frac{4}{r} - \frac{2}{r} = \frac{2}{r}$$

$$\therefore q_1 = \frac{r}{2}$$

Again

$$\frac{1}{q_1} + \frac{1}{q_2} = \frac{2}{r} = -\frac{2}{r}$$

$$\text{or } \frac{1}{q_2} = -\frac{2}{r} - \frac{1}{q_1} = -\frac{2}{r} - \frac{2}{r} = -\frac{4}{r}$$

$$\text{or } q_2 = (-1)^{\frac{2}{2-3}}$$

Now assume that this S is true for the n^{th} , i.e., assume that

$$\frac{q}{n} = (-1)^{n-1} \frac{r}{2(n+1)}$$

Then for the $(n+1)^{\text{th}}$, we have

$$\frac{1}{q_{n+1}} + \frac{1}{q_n} = (-1)^n \frac{2}{r}$$

$$\text{or } \frac{1}{q_{n+1}} = (-1)^n \frac{2}{r} - \frac{1}{q_n}$$

$$= (-1)^n \left\{ \frac{2}{r} + \frac{2(n+1)}{r} \right\} \\ = \frac{(-1)^n 2(n+2)}{r}$$

$$\text{or } q_{n+1} = (-1)^n \frac{r}{2(n+2)}$$

But it has been proved to be true for the first and second reflections.

$\therefore$ It is universally true.

6. Find the radius of curvature at the point $(a, 0)$ in the curve $xy^2 = a^2(a-x)$, and shew that there is a point of inflexion where $x = \frac{3a}{4}$

For the radius of curvature, we have

$$(1) \quad xy^2 = a^2(a-x)$$

Transferring the origin to $(a, 0)$, the equation becomes

$$xy^2 + ay^2 + a^2x = 0$$

and we see that the y axis is the tangent at the origin. Dividing by x , we have

$$y^2 + a \frac{y^2}{x} + a^2 = 0$$

and the Lt. $\frac{y^2}{x}$ at the origin is 2ρ and the equation becomes

$$\text{or } 2\rho + a^2 = 0$$

$$\text{or } \rho = -\frac{a^2}{2}$$

$$\text{or } (2) \quad xy^2 = a^2(a-x)$$

$$\text{i.e., } xy^2 + a^2x - a^3 = 0 = f$$

$$\frac{\partial f}{\partial x} = y^2 + a^2, \quad \frac{\partial^2 f}{\partial x^2} = 0$$

$$\frac{\partial f}{\partial y} = 2xy, \quad \frac{\partial^2 f}{\partial y^2} = 2x$$

$$\frac{\partial^2 f}{\partial x \partial y} = 2y$$

$$\left\{ \left(\frac{\partial f}{\partial x} \right)^2 + \left(\frac{\partial f}{\partial y} \right)^2 \right\}^{\frac{3}{2}}$$

$$\rho = - \frac{\frac{\partial^2 f}{\partial x^2} \left(\frac{\partial f}{\partial y} \right)^2 - 2 \frac{\partial^2 f}{\partial x \partial y} \frac{\partial f}{\partial x} \frac{\partial f}{\partial y} + \frac{\partial^2 f}{\partial y^2} \left(\frac{\partial f}{\partial x} \right)^2}{(a^2)^{\frac{3}{2}}} \\ = - \frac{(a^2)^{\frac{3}{2}}}{2a^3} = - \frac{a}{2} \text{ at the point } (a, 0)$$

At a point of inflexion $\rho = \infty$.

$$\therefore \frac{\partial^2 f}{\partial x^2} \left(\frac{\partial f}{\partial y} \right)^2 - 2 \frac{\partial^2 f}{\partial x \partial y} \frac{\partial f}{\partial x} \frac{\partial f}{\partial y} + \frac{\partial^2 f}{\partial y^2} \left(\frac{\partial f}{\partial x} \right)^2 = \infty$$

$$\text{or } -2 \frac{2y}{x} y + (y^2 + a^2) = 0.$$

$$\text{i.e. } 4y^2 = y^2 + a^2$$

$$\text{or } y = \frac{a}{\sqrt{3}}$$

$$\therefore x = \frac{3a}{4}$$

$\therefore$ The point $x = \frac{3a}{4} y = \frac{a}{\sqrt{3}}$ is a point of inflexion since it has been shewn that at this point ρ is ∞ .

8. Solve completely

$$(x^3 - 3qx + \rho^3 - 3\rho q)^3 - 4(\rho x + q)^3 = 0.$$

$$(x^3 - 3qx + \rho^3 - 3\rho q)^3 = 4(\rho x + q)^3.$$

$$= \left\{ 4^{\frac{1}{3}} (\rho x + q) \right\}^3.$$

$$\therefore x^3 - 3qx + \rho^3 - 3\rho q = (i) \quad 4^{\frac{1}{3}} (\rho x + q).$$

$$(ii) \quad (4^{\frac{1}{3}} \frac{\rho x + q}{\omega}).$$

$$(iii) \quad (4^{\frac{1}{3}} \frac{\rho x + q}{\omega^2}).$$

where $1, \omega, \omega^2$ are the three cube roots of unity, and each of these may be completely solved by Cardan's method.

Solving the 1st.

$$x^3 - 3qx + \rho^3 - 3\rho q = 4^{\frac{1}{3}} (\rho x + q)$$

$$\text{or } x^3 - x(3q + 4^{\frac{1}{3}} \rho) + \rho^3 - 3\rho q - 4^{\frac{1}{3}} q = 0.$$

$$\therefore x = \left(-\frac{r}{2} + \sqrt{\frac{r^2}{4} + \frac{q^3}{27}} \right)^{\frac{1}{3}} + \left(-\frac{r}{2} - \sqrt{\frac{r^2}{4} + \frac{q^3}{27}} \right)^{\frac{1}{3}},$$

$$\text{where } r = \rho^3 - 3\rho q - 4^{\frac{1}{3}} q.$$

$$\text{and } p = -(3q + 4^{\frac{1}{3}} \rho).$$

9. Prove that the area of the ellipse given by the general equation $(a, b, c, f, g, h), (xy, 1)^2 = 0$ is $\pi \Delta / C^{\frac{1}{2}}$, where Δ is the discriminant of the equation and $C = \frac{d\Delta}{dc}$

$$\text{Equation to ellipse is } ax^2 + 2hxy + by^2 + 2gx + 2fy + c = 0.$$

This when referred to the centre as origin becomes

$$ax^2 + 2hxy + by^2 + c' = 0. \quad \text{where } c' = \frac{\Delta}{ab - h^2}$$

$$\text{or } ax^2 + 2hxy + by^2 = \frac{\Delta}{h^2 - ab}$$

$$\text{or } \frac{a(h^2 - ab)}{\Delta} x^2 + 2 \frac{h(h^2 - ab)}{\Delta} xy + \frac{b(h^2 - ab)}{\Delta} y^2 = 1.$$

$$\text{Denote this by } Ax^2 + 2Hxy + By^2 = 1.$$

The squares of the semi-axes are given by

$$\frac{1}{r^2} - (A + B) \frac{1}{r^2} + AB - H^2 = 0.$$

or $(AB-H^2)r^4 - (A+B)r^2 + 1 = 0$.
and if r_1, r_2 be the semi-axes

$$(r_1 r_2)^2 = \frac{1}{AB-H^2}$$

$$\therefore r_1 r_2 = \frac{1}{\sqrt{AB-H^2}}$$

or substituting for A, B, H their values in terms of a, b, h we have

$$r_1 r_2 = \frac{\Delta}{(ab-h^2)^{\frac{3}{2}}}$$

$$\therefore \text{The area of the ellipse} = \pi r_1 r_2 = \frac{\pi \Delta}{(ab-h^2)^{\frac{3}{2}}} \\ = \frac{\pi \Delta}{C^{\frac{3}{2}}}$$

$$[\Delta = abc + 2 fgh - af^2 - bg^2 - ch^2]$$

$$\therefore C = \frac{d\Delta}{dc} = ab - h^2.]$$

15. Explain why a beam of light cannot pass through a glass prism whose refracting angle is 85° , but can pass through a water prism of that angle.

No ray can pass through a prism if i be greater than twice the critical angle of the medium, $\phi' < a$, for $\phi' + \psi' = i > 2a$, a being the critical angle. Hence since $\psi' > a$, and no ray can emerge, where ϕ' and ψ' are the angles of refraction corresponding to ϕ, ψ the angles of incidence.

Refractive index of glass = $\frac{3}{2}$

of water = $\frac{4}{3}$

In order that any ray may pass through a glass prism, $i < 2a$, i.e., $< 2 \sin^{-1} \frac{3}{4}$

$$\sin^{-1} \frac{3}{4} = 41^\circ 49' \text{ nearly from the tables.}$$

$$\therefore i < 2 (41^\circ 49') \\ < 83^\circ 38'$$

But $i = 85^\circ$ which is greater than $83^\circ 38'$. Hence no ray can pass through. In the case of the water prism,

no ray can pass through if $i > 2 \sin^{-1} \frac{4}{3}$ and $\sin^{-1} \frac{4}{3} = 48^\circ 36'$ nearly (from the tables) $\therefore i > 97^\circ 12'$ in order that no ray may pass thro'

But $i = 85^\circ$

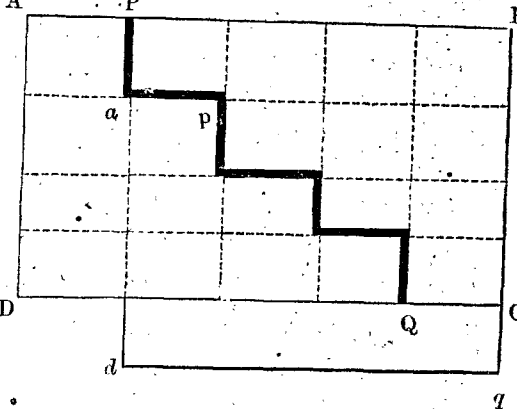
$\therefore$ Rays can pass through the water prism.

Second question, June number, 1893.

(A Carpenter)—Given a rectangular piece of board 2ft. 1in. long and 1ft. 4in. broad, show that it can be cut into two parts which can be fitted so as to form a square.

Solution by the Carpenter.

Let ABCD be the board; the length AB = 25in. and the breadth AD = 16 in. Draw on the board lines parallel to AD at intervals of 5 in. dividing the board into 5 equal rectangles; also draw lines parallel to AB at intervals of 4 in. which divide the board into 4 equal rectangles. Cut the board along the broken line PQ (marked thick in the figure) into the parts ADQP and CBPQ. Moving the part ADQP into the position $adqp$ we obtain a complete square, namely, PB q d.



[The carpenter hopes that the intelligent reader will readily see that any rectangle whose sides are in the duplicate ratio of two consecutive integers can be cut into two parts which can be fitted so as to form a square.]

7. In Δ if O be the circum centre and I the in-centre then $OI^2 =$

$$R^2 - 2Rr = 0 \text{ when } R = 2r$$

$\therefore OI = 0$, i.e., O and I coincide

$\therefore$ in the ΔOBC , OB bisects

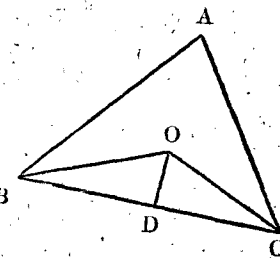
$\angle ABC$ and OC the $\angle ACB$, and

OD bisects BC at right angles

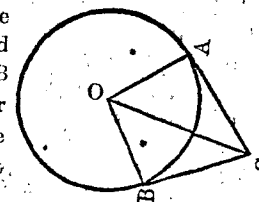
$\therefore \angle ABC = \angle ACB$

$\therefore AB = AC$. Similarly $AB = BC$.

$\therefore$ the Δ is equilateral.



10. If AB be the circumference and O the centre, draw any two radii OA and OB inclined at $\frac{1}{3}\pi$ at the centre and draw the tangents at A, B to meet at C. Then the circle with C for centre and CA or CB for radius cuts the circle given orthogonally and the part AB cut off by it is one-third the whole circumference.



8. The given expression is of the form $A^3 - B^3 = (A-B)(A-B\omega)(A-B\omega^2)$ each of the factors being a cubic without the second power of x . These three can be solved with the aid of Art. 166 in Todhunter's Theory of Equations. Thus there are 9 roots for the given equation.

13. The parabola is $\sqrt{ax} + \sqrt{by} = 1$.

i.e., $ax = 1 + by - 2\sqrt{by}$ i.e., $(1 - ax + by)^2 = 4by$.

i.e., $(ax - by)^2 = 2ax + 2by - 1$

i.e., $(ax - by + \lambda)^2 = 2ax(1 + \lambda) + 2by(1 - \lambda) - 1$

such that $ax - by + \lambda = 0$ and $2ax(1 + \lambda) + 2by(1 - \lambda) - 1 = 0$

$+ \lambda^2 - 1 = 0$ are at right angles $\therefore \frac{b}{a} = -\frac{a(1 + \lambda)}{b(\lambda + 1)} - \frac{b^2}{a^2} = \frac{\lambda + 1}{\lambda - 1}$

$\therefore \frac{a^2 - b^2}{a^2 + b^2} = -\lambda \therefore$ the axis is $ax - by = \frac{a^2 - b^2}{a^2 + b^2}$.

Questions for Solution.

1. To draw normals through a given point within or without to a system of confocal ellipses the foci being given, i.e., to draw a line of minimum length from a given point to a system of confocal ellipses.

2. To inscribe an equilateral triangle of given side in a conic.

2. To find the length of a side of a regular pentagon inscribed in a circle of given radius.

Solutions to the questions in the September number, 1893.

7. If in a triangle $R = 2r$, it must be equilateral

$$\text{Now } R = \frac{a}{2 \sin A}; r = \frac{a \sin \frac{B}{2} \sin \frac{C}{2}}{\cos \frac{A}{2}}$$

$$\therefore \frac{a}{2 \sin A} = \frac{2a \sin \frac{B}{2} \sin \frac{C}{2}}{\cos \frac{A}{2}} \text{ or } 8 \sin \frac{A}{2} \sin \frac{B}{2} \sin \frac{C}{2} = 1.$$

In a triangle $8 \sin \frac{A}{2} \sin \frac{B}{2} \sin \frac{C}{2}$ is less than 1, except when $A = B = C$.

(Tod. Plane Trig., Ch. XIII.)

$\therefore$ the triangle is equilateral.

14. Sum up to infinity—

$$\frac{3}{3} + \frac{7}{3^3} + \frac{11}{3^5} + \frac{15}{3^7} + \dots$$

Let it be = S

$$\text{Then } \frac{S}{3} = \frac{3}{3^3} + \frac{7}{3^5} + \frac{11}{3^7} + \dots$$

$$\therefore S \left(1 - \frac{1}{3^2}\right) = 1 + \frac{4}{3^3} + \frac{4}{3^5} + \frac{4}{3^7} + \dots$$

$$= 1 + \frac{4}{3^3} = 1 + \frac{4}{27} + \frac{9}{8} = 1\frac{1}{8}$$

$$\therefore S = \frac{7}{2} \times \frac{3}{8} = \frac{21}{16} = 1\frac{5}{16} \text{ Ans.}$$

16. If $\left(\frac{1 - px}{1 - qx}\right)^n = a_0 + a_1 x + a_2 x^2 + \dots$ find the relation between

a_{r-1}, a_r, a_{r+1} .

$$\text{Let } y = \left(\frac{1 - px}{1 - qx}\right)^n = a_0 + a_1 x + a_2 x^2 + \dots$$

$\therefore$ Differentiating

$$\therefore y_1 = \frac{(1 - qx)^n np(1 - px)^{n-1} - (1 - px)^n nq(1 - qx)^{n-1}}{(1 - qx)^{2n}}$$

$$= \frac{nqy}{1 - qx} - \frac{np y}{1 - px} = \frac{ny(q - p)}{(1 - px)(1 - qx)}$$

$$\therefore y_1(1 - p + q + pqx^2) = n(q - p)y \dots \dots \dots (1)$$

but $y = a_0 + a_1 x + a_2 x^2 + \dots a_{r-1} x^{r-1} + a_r x^r + \dots$

$$y_1 = a_1 + 2a_2 x + 3a_3 x^2 + \dots (r-1)a_{r-1} x^{r-2} + r a_r x^{r-1} + (r+1)a_{r+1} x^r + \dots$$

Substituting these expressions in equation (1) and equating the coefficients of x^r in both sides we get.

$$n(q - p)a_r = (r+1)a_{r+1} - (p+q)ra_r + pq(r-1)a_{r-1}$$

$$\therefore a_r \{ n(q - p) + r(p + q) \} = (r+1)a_{r+1} + pq(r-1)a_{r-1}$$

is the relation between a_{r-1}, a_r, a_{r+1} .

17. If p_r be the coefficient of x^r in the expansion of $(1+x)^n$, Shew that

$$p_1 - \frac{1}{2}p_2 + \frac{1}{3}p_3 - \frac{1}{4}p_4 + \dots (-1)^{n-1} \frac{p_n}{n} = 1 + \frac{1}{2} + \frac{1}{3} + \dots \frac{1}{n}$$

let the left hand side be = S_n

$$\text{then } S_n = n - \frac{n(n-1)}{2 \cdot 2} + \frac{n(n-1)(n-2)}{3 \cdot 2 \cdot 3} - \dots (-1)^{n-1} \frac{1}{n}$$

$$\text{then } S_{n+1} = (n+1) - \frac{(n+1)n}{2 \cdot 2} + \frac{(n+1)n(n-1)}{3 \cdot 2 \cdot 3} - \dots (-1)^n \frac{n+1}{n+1}$$

$$\therefore S_{n+1} - S_n = 1 - \frac{n}{2} + \frac{(n-1)n}{2 \cdot 3} - \dots (-1)^n \frac{1}{n+1}$$

$$= \frac{1}{n+1} \left\{ (n+1) - \frac{(n+1)n}{2} + \frac{(n+1)n(n-1)}{2 \cdot 3} - \dots (-1)^n \right\}$$

$$= \frac{1}{n+1} \left[1 - \left\{ 1 - (n+1) + \frac{(n+1)n}{2} - \dots \right\} \right]$$

$$= \frac{1}{n+1} \left[1 - (1-1)^{n+1} \right] = \frac{1}{1+n}$$

$$\therefore S_{n+1} = S_n + \frac{1}{1+n}$$

Now $S_1 = 1$.

$\therefore S_2 = 1 + \frac{1}{2}, S_3 = 1 + \frac{1}{2} + \frac{1}{3} \dots$ and so on.

$$S_{n+1} = 1 + \frac{1}{2} + \frac{1}{3} + \dots + \frac{1}{n}$$

10. Draw a circle to trisect the circumference of a given circle and cut it at right angles.

Let A be one of the angular points of an inscribed equilateral triangle with and B another.

Take O the centre of the circle. Join OA, AB. Bisect AB at C. Draw CD at right angles to AB. Draw AD the tangent at D, meeting CD at D. Then the circle will centre D and radius DA shall trisect the given circle orthogonally. For, $DA=DB$, and DAQ is a right angle (III, 18) and AEB is a third of the circumference.

11. Find a point E within a triangle ABC, such that $AE+BE+CE$ may be a minimum.

Let $AE=u$, $BE=v$, $CE=w$. Draw ED perpendicular to BC. Let $ED=y$, $BD=x$, $BED=a$, $CED=\beta$, and $AED=r$.

$$\text{Now } v^2 = x^2 + y^2$$

$$w^2 = (a-x)^2 + y^2$$

$$u^2 = (c \cos \beta - x)^2 + (c \sin \beta - y)^2$$

Now $u+v+w$ is a minimum:

$$\therefore \frac{\partial u}{\partial x} + \frac{\partial v}{\partial x} + \frac{\partial w}{\partial x} = 0$$

$$\frac{\partial u}{\partial y} + \frac{\partial v}{\partial y} + \frac{\partial w}{\partial y} = 0$$

$$\text{Now } \frac{\partial u}{\partial y} = -\frac{c \cos \beta - x}{u} = \sin \gamma$$

$$\frac{\partial u}{\partial x} = \frac{x}{v} = \sin a \text{ and } \frac{\partial u}{\partial x} = -\frac{a-x}{w} = -\sin \beta$$

$$\therefore \sin a - \sin \beta - \sin \gamma = 0.$$

$$\frac{\partial u}{\partial y} = -\frac{c \sin \beta - y}{u} = \cos r.$$

$$\frac{\partial u}{\partial y} = \frac{y}{v} = \cos a, \text{ and } \frac{\partial w}{\partial y} = \cos \beta.$$

$$\therefore \cos a + \cos \beta + \cos \gamma = 0.$$

$$\therefore \sin a = \sin \beta + \sin \gamma$$

$$\cos a = -\cos \beta - \cos \gamma.$$

$\therefore$ Squaring and adding

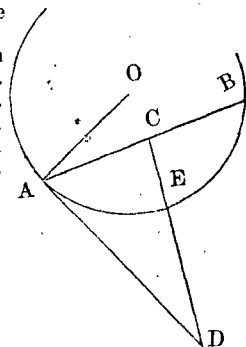
$$1 = 2 + 2 \sin \beta \sin \gamma + 2 \cos \beta \cos \gamma$$

$$\therefore \cos (\gamma - \beta) = -\frac{1}{2} = \cos 120^\circ$$

$$\therefore \gamma - \beta = 120^\circ.$$

$$\text{or } AEC = 120^\circ. \text{ Similarly } BEC = 120^\circ \text{ and } AEB = 120^\circ.$$

$\therefore$ The construction is, describe segments of circles on the sides containing an angle of 120° . The point of intersection of the segments is the point required.



INDIAN NOTES

Mr. A. Monro, M.A., B.C.L., Acting Director of Public Instruction, Madras, arrived in Madras with Mrs. Monro, on Saturday 28th ultimo, and took over charge on the following Monday. Since then he has been gazetted as an additional member of Council.

The Muhammadans of the Panjab intend to hold their annual Educational Conference next month at Lahore.

The Annual Distribution of prizes at the Native College, Madura, took place on Saturday, 14th ultimo, with Mr. E. Turner, C.S., in the chair.

The number of candidates registered in the mofussil stations for the Lower Secondary Examination to be held next month in the Madras Presidency is 4,884.

We understand that Government has invited the authorities of the Madras University to consider the question of establishing a special degree in Agriculture.

Mr. T. V. Subbu Ran Pantulu, B.A., Acting Lecturer, Rajahmundry College, has been appointed Vice-Principal of the new Training College at Rajahmundry.

The number of candidates registered for the approaching Matriculation and F. A. Examinations of the University of Madras amounts respectively to 3423 and 2312.

The annual conference of the Malayalam Bhasha Poshini Sabha assembles on 9-11th instant, at Calicut under the patronage of His Highness the Zamorin Rajah Bahadur.

Mr. M. T. Quinn, M.A., Acting Principal of Pachaiyappa's College, has been appointed to fill the vacancy on the Board of Examiners for the Madras Government Upper Secondary Examination.

Mr. G. J. Thompson, B.A., Inspector of Schools, Southern Circle, Central Provinces, has been appointed to act for the Honorable Mr. A. Monro, M.A., B.C.L., as Inspector-General of Education, Central Provinces.

The Annual Distribution of Prizes at the Government Girls' School, Madura, took place on Saturday, 7th ultimo. Miss Arnold, Acting In-

spectress of Girls' Schools, Southern Circle, presided and gave away the prizes on the occasion.

The fifty-first Anniversary of Pachaiyappa's Institutions will be celebrated in Pachaiyappa's Hall, Madras, on Tuesday, 21st instant, when the Prizes will be distributed by His Excellency Lord Wenlock, G.C.I.E., Governor of Madras.

No examination will be held next May under the revised notification regulating the Madras Upper Secondary Examination, published in the *Fort St. George Gazette* of 10th ultimo. The First Examination under the new scheme will be held in December 1894.

We learn from *The Bharata* that the Zemindar of Parlakimedi, in the Ganjam District, who is deeply interested in the cause of education, intends to raise the High School there, which he has maintained for the last 14 years, to the status of a Second Grade College.

Mr. Walter Mytton Colvin, Barrister-at-Law, Fellow of the University of Allahabad, has been unanimously elected by that University for nomination to the Council of the Lieutenant-Governor of the N. W. Provinces and Oudh for making Laws and Regulations.

Mr. E. D. Archibald, M.A., who has been appointed by the Secretary of State for India to be Principal of the Jubbulpore College, Central Provinces, assumed charge of his duties on 5th ultimo from Mr. J. H. Firth, who thereupon reverted to his post of Professor of Mathematics in the College.

The Honorable Mr. R. G. Oxenham, M.A., Acting Director of Public Instruction, Bombay, has been appointed a Dean of the Faculty of Arts of the Bombay University in succession to the Honorable Mr. Justice Jardine, C.S.; who has been absent for a longer period than the rules permit of.

The Hon. Rao Bahadur M. G. Ranade, M.A., LL.B., C.I.E., who has just been appointed to succeed The Hon. Mr. Justice Telang, lately deceased, as a Judge of the Bombay High Court, was for a long time Assistant Professor of English Literature at the Elphinstone College, Bombay.

The Board of Examiners appointed to conduct the approaching Competitive Examination for admission to the Madras Government Salt and

Abkari Department consists of the following members:—Mr. G. H. Stuart, M.A., *Chairman*; Mr. A. E. Duchesne, B.A.; The Rev. G. Pittendrigh, M.A.; and Mr. M. T. Quinn, M.A.

The Lucknow Christian College, founded as a school in 1866, now teaches up to the B. A. Standard, and its first batch of candidates will appear for the B. A. Degree Examination in 1894. A new College building has just been completed and opened free of debt. His Honour The Lieutenant Governor of the North West Provinces presided on the occasion.

Mr. J. J. Whiteley, A.M.I.C.E., Executive Engineer, Madras Public Works Department, has been appointed Tutor to the children of H. H. The Maharajah of Mysore. Mr. Whiteley's services had been temporarily placed at the disposal of the Educational Department so far back as January 1892, since which time he has been acting for Mr. A. Chatterton B. Sc., as Professor of Engineering at the College of Engineering, Madras.

The voting for the two new Fellows to be elected by the Graduates of the Madras University will take place at the Senate House, Madras, on Saturday 25th instant from 3 to 5-30 p.m. Voters residing in Madras will receive voting papers on calling at the Senate House in person to record their votes. Mofussil voters should write to the Registrar for voting papers, which should be returned to him duly filled in so as to reach him not later than Friday, 24th instant.

The Despatch from the Government of India in reply to the Indian Secretary of State's Despatch to them regarding Mr. Paul's motion, and the Resolution passed thereon by the House of Commons in favour of holding simultaneously in England and in India the Examination for admission to the Indian Civil Service, has just been forwarded to London. *The Indian Daily News* of Calcutta learns that all the local governments are in favour of the retention of the existing system.

The Bombay University Examinations have been fixed by the Syndicate for the 6th, 10th and the 11th instant during the Devali Holidays. The new Vice-Chancellor, Dr. R. G. Bhandarkar, and others of the Syndicate have, says *The Maharatta*, been asked to modify their resolution and postpone the Examination till after the Holidays. This has been complained of as a want of consideration on their part for the religious and social susceptibilities of the Hindu students.

Mr. E. B. Havell, Superintendent of the Madras School of Arts, was offered while at home on furlough, and has now definitely accepted, the post of Principal of the Mayo School of Industrial Arts at Lahore, rendered vacant by the retirement of Mr. J. L. Kipling, C.I.E., father of Mr. Rudyard Kipling, the now famous novelist; and the Madras Government has applied to the Secretary of State for a new Superintendent with all the requisite Kensington qualifications.

Government has now awarded sanction to the opening, on 22nd January 1894, of a new First Grade Training College at Rajahmundry, as a branch of the Arts College. Accordingly, graduates and undergraduates of the F. A. Standard are invited to join the College to undergo training for the L. T. Degree of the Madras University, and for Second Grade Collegiate certificates. The following scholarships are available:—Six of Rs. 15 each for L. T. candidates, and ten of Rs. 12 each for Second Grade Collegiate Students.

Three of our Indian Rulers,—two of them now in the country, and one of them shortly to come out—were school-boys together at Eton,—Lord Elgin, our new Viceroy; Lord Wenlock, Governor of Madras; and Lord Harris, Governor of Bombay. Lord Elgin and Lord Wenlock are of the same age, both being 44, or two years senior to Lord Harris. All three were distinguished for their athletic prowess in “the best of schools,” and have ever since taken a keen interest in, and been active in their encouragement of, all manner of Sports and Field Games.

An informal meeting of representative educationists from all the First Grade Colleges affiliated to the Madras University was recently held at College House, Madras, under the auspices of The Hon'ble The Rev. Dr. Miller, C.I.E., for the purpose of ascertaining the drift of opinion regarding the present History Curriculum for the B. A. Degree Examination of the University of Madras. The meeting was unanimous in favour of many changes and improvements, and we may confidently expect that the University authorities will take the whole question in hand in the course of the ensuing year.

The cause of Education in the Telugu districts is about to receive another impetus in the opening of the Second Grade College at Ongole, under the auspices of the American Baptist Telugu Mission. There are, we understand, some 220 pupils in the Secondary departments of the school of whom nearly one-half are Native Christians. It is primarily for the benefit of the large and growing community con-

364
nected with this Mission that the college is opened. Mr. L. E. Martin, M. A., is to be Principal; Rev. O. R. McKay, M. A., Vice Principal and Mr. K. Venkateswara Aiyar, B.A., L.T., Headmaster.

The Industrial Conference held its third sitting recently in Poona, under the presidency of the Hon. Mr. Fazulbhai Vishram, and was largely attended by the leading Native Gentlemen. Representatives were present from the different Native States in Kathiavar and the Southern Mahratta Country. A few European Gentlemen who take an interest in the business of the meeting, such as the Hon. Mr. Oxenham, the Hon. Mr. Crowe, the Hon. Mr. Trevor, Captain Beauclerk and Mr. Giles, were also present. The Chairman regretted that systematic Technical Education found no place in the Educational schemes of the country, and wished the subjects of Technical, Commercial, and Agricultural Education to occupy a more prominent place in the system of education than at present. The Hon. Mr. Ranade read a paper in “Indian Foreign Emigration,” which he strongly advocated.

Mr. A. A. Hall, M.A., in addition to his duties as Principal of the Teachers' College, Saidapet, Madras, has charge of two Branch Training Schools in Triplicane, one for Hindus, the other for Muhammadans, and latterly was placed by Government in charge of the training of gymnastic instructors, when this part of the former functions of the old “Madras Physical Training and Field Games Association,” now re-constituted as “The Madras Athletic Association,” was taken over by Government, and the Gymnasium transferred from The People's Park to the Teachers' College, Saidapet. His Report on the working of the various institutions under his charge for the official year 1892-93 is very long and very interesting; and we regret that the requirements of space forbid us to do more than notice a few of its more salient features. Foremost among these is the retirement, regretted by all, of Mr. J. M. Velu Pillai, who had been connected with training institutions for the last 30 years. Then come many other changes and transfers and a general shuffling, which is greatly to be regretted, as we consider that if high results are to be expected, a strong permanent staff doing its work steadily all the year round, is absolutely essential in an institution like the Teachers' College, where all the training has to be crushed into one year, a fact for which adequate allowance does not seem to have been made in the Director's Review of the Principal's Report. There were under training, 79 students, among whom the Director regrets that the names of only one Eurasian and one Muhammadan are to be found. The accommodation was all that could be desired, and the large library was extensively used. The practising school improved

both in strength and efficiency. At the L. T. Degree Examination, 23 out of 28 passed the theoretical, and 7 out of 23 the practical test, two ladies (the Misses Parsons) being among the 7 that fully qualified for the Degree. Fifty-nine candidates appeared for the Written Examination for Teacher's Certificates held in May and December 1892 (31 F.A.'s and 28 Matriculates), and 33 passed (17 F.A.'s and 16 Matriculates). Eighteen candidates (8 F.A.'s and 10 Matriculates) appeared for the Practical Test before the Board of Examiners in April and September 1892, and 17 passed (all the F.A.'s and all the Matriculates but one). A novel and noteworthy feature of the year's work was the public performance on two occasions of scenes from *Coriolanus* and *The Merchant of Venice* by the Dramatic Society, which is under the able and energetic management of Mr. Thomas Denham, M.A., Vice-Principal of the College. The Society held weekly meetings throughout the year, and the performances just mentioned were greatly appreciated by critical audiences. Due attention was paid to the physical training of the students, and the success of the recreation club is creditable to the staff. The Director seems to have misunderstood Mr. Hall's proposal regarding the examination of students for certificates in Drill and Gymnastics, and the result is that the unhappy Board of Examiners for Teachers' Certificates, which includes two ladies, now finds itself burdened with the examination of young men for gymnastic certificates, in addition to its own legitimate duties. The successful working of the various institutions during the year under review reflects credit on Mr. Hall and his Assistants.

LITERARY NOTES.

Mrs. Hodgson Burnett's model hero for her "Little Lord Fauntleroy" was her own manly little brother.

Shakspeare's *Taming of the Shrew* has been translated into Malayalam under the title of *Kalahindamanakam*.

Mr. Pratap Chandra Roy, C. I. E., has almost finished his scholarly translation of *The Mahabharata*, only about a fifth now remaining to be translated.

The September number of *The Chaitanya Library Journal*, Calcutta, contains an able article by Mr. N. N. Ghose, entitled "The Moral Canker in Bengal," which we strongly recommend to the notice of our readers.

Messrs. Khan Bahadur G. M. Munshi & Sons, of the "Anglo-Oriental Book Depôt, Kalka Devi Road, Bombay," have for disposal a large number of second-hand books, for which they invite offers. Their catalogue will be supplied on application.

We learn from a circular forwarded to us by the Clarendon Press, Oxford, that the 20th Edition, revised, of "A Brief History of the Indian Peoples" by Sir. W. W. Hunter, K. C. S. I., C. I. E., with a map, and handsomely bound in cloth, is now ready for sale at 3s. 6d. a copy.

The first number of Volume II of *The Telugu Journal of Education* gives a copy of a school Admission Register and makes remarks on each column in it. Almost the whole issue is taken up with this. A list of Railway Stations in the Madras Presidency and a few pages of News and Occasional Notes complete the number.

The Clarendon Press announces that the "Rulers of India" Series will be completed with the three following works, which will probably be published before Christmas:—*Haider Ali & Tipu Sultan* by Mr. L. B. Bowring, C. S. I.; *Sir Thomas Munro* by Dr. J. Bradshaw; and *Earl Amherst* by Mr. T. W. Richmond Ritchie and Mrs. Richmond Ritchie (née Thackeray).

We have received from Messrs. Sashachella Chetty & Son of Madras, a Pocket-Book & Diary for 1894 entitled "S. Sashachella Chetty & Son's Universal and Everybody's Pocket-Book & Diary for 1894". Be not appalled, O Reader, by the title, but look within, and you will find the book well worth 8 annas. It is specially intended for Madras students, and will be found of real use to them.

Among the *New Books* published by Messrs. Macmillan & Co. during the month of September, Indian students will be glad to hear that there are three of Shakspeare's plays, edited by Mr. Deighton, viz., "Romeo and Juliet" "King Henry the Fourth, Part I;" and "King Henry the Fourth, Part II." Among the *New Editions* added to their six-shilling Novels we notice "Don Orsino" by F. Marion Crawford.

Messrs. W. H. Allen and Co. will publish during the present month a novel in three volumes entitled "Alice of the Inn". It is from the pen of Mr. G. W. Sherer, C. S. I., (late of the Indian Civil Service) and proposes to supply one solution at least of the following social problem:—"What should a girl brought up in one station in life, who finds she was born in a higher, do with a lover of her first condition?"

The October number of the Tamil *Viveka Chintamani* maintains its high standard. In the first article, the several kinds of light as given by the sun, the moon, the stars, and metals, are described. In the second, the influence of the mind on the body, the good and evil effects of good and bad humour, the pathological results of fixed ideas, mesmerism and the real rationale of witchcraft are set forth in a telling manner. Two of the other articles, "Will of the Wisp" and "Hunger and Thirst," are intended to remove popular prejudices and give enlightened views on the subjects dealt with.

The first announcement of publications by Messrs. G. P. Putnam's Sons for the coming season comprises the following:—*The Story of Parthia* by George Rawlinson, and *The Story of Japan* by David Murray, both in the "Story of the Nations" Series; *A Manual of Linguistics* by J. Clark, M.A.; *A Ready Reckoner of the World's Foreign and Colonial Exchanges* by J. H. Norman, London Chamber of Commerce; and *The Best recent Books* by W. S. Sonnenschein. The last-mentioned volume will form the first supplement to Mr. Sonnenschein's admirable larger volume published in 1891. These books will be published in New York only, under arrangements with the English publishers.

The first Tamil types were cut at Amsterdam in 1678 A.D. to express the names of certain plants in a large botanical work entitled "*Horti Indici Malabarici*." The first short piece ever printed in Tamil characters was *The Apostles' Creed*. This was printed at Halle, about 1713 A.D., to supply the Tranquebar Mission. The printing of *The New Testament* was completed at Tranquebar in 1715, and this was the first complete work ever printed in the Tamil language. In 1761, the Madras Government allowed the Vepery Missionaries the use of a Tamil press taken at Pondicherry in the January of that year, when the brave but unfortunate Lally was forced to surrender his stronghold to Colonel (afterwards Sir Eyre) Coote.

The first number of Volume V. of *The Vidya Vinodini*, a monthly periodical printed entirely in Malayalam, contains a few long and learned articles such as are found in the Nineteenth Century and other large European monthly reviews. Published at Trichur, the centre of the Malayalam population, and commanding contributions from sound Malayalam scholars, the Journal affords interesting reading for the educated classes. The present number leads off with editorial remarks on the occasion of the Journal entering upon the fifth year of its existence. One article contains a disquisition on Belief in Dreams. A short account

of the British Indian mode of Government is then given. Last in order, but first in importance, stands a Malayalam translation of Shakspeare's play of the *Tempest*. The diction throughout is exalted, and the sentiments refined.

OUR LONDON LETTER.

The silly season has descended upon us with redoubled impetuosity since the dissolution of parliament. We praised it little enough when we had it; but, now the familiar drone has been silenced for a space, we miss it. But for the terrible coal strike, there would be an absolute dearth of subjects of interest in the papers; for affairs in Brazil, Siam, India, and other quarters of the globe, offer no attraction to the English Philistine. In such circumstances, writing a London Letter is like making the proverbial bricks, not only without straw, but without clay. I must therefore put forward a claim for a silly season of my own, and base this letter on the concentrated silliness of your contemporaries.

I must first, however, venture to express the deep grief which I, in conjunction with his many friends, feel at the sadly premature death of Mr. Justice Telang. India in our day has offered no finer example of the career that lies open to persevering and independent ability. The theme is one upon which I might discourse, but as I have been permitted to offer my tribute to the memory of the departed in another medium, where it will doubtless come under the eyes of the Journal, I shall here say no more.

In this connexion I would commend to all my readers a small volume of which a paper (I believe the last printed) by Mr. Telang forms a distinguished ornament. I refer to the volume of "Deccan College Lectures" published at the office of this Journal. I must plead guilty to not having mentioned it before. Indeed I took it away with me from India, with the intention of writing of it the full review which it well deserves. But man proposes. It is a volume which should be read on account of the remarkable papers which it contains—and in particular, two—"Gleanings from Maráthá Chronicles" by Mr. Telang, and "Some aspects of Political Economy" by Mr. G. M. Ranade. But it is more than this. It is an example to be followed. If our other Colleges and Universities were to go and do likewise, and others of our scholars, many of whom are much less busy men than the two whose names have been mentioned, were to follow their example, they would go far to sweep away altogether as utterly baseless, the accusation of want of originality so often thrown at their heads.

I mentioned in a recent letter the new edition of Shakspeare about to be published by Messrs. Constable and Co. The first volume has now appeared, and, being the fortunate possessor of a copy, I am in a position to give it an unstinted meed of praise. It has met with the highest encomiums of the press, from "The Times" downward; and it may be safely said to be the most beautiful and readable handy-volume edition in the market. It is not of course a student's edition, but for the reader and lover of Shakespeare it stands unrivalled.

A book of the day which I have read with the deepest interest will doubtless soon receive more extended notice in your columns. I refer to Mr. Tupper's remarkable volume on "Our Indian Protectorate". It is far more than its title implies. It combines a treatise on Political Law, as applied to the Government of India, with a historical sketch of the progress of events during the last century, and a most philosophical comparative view of the modifications of indigenous Indian Institutions. The author, in his working methods and even in his literary style, is of the school of Sir H. S. Maine and Sir A. Lyall; and as he possesses a fuller knowledge of Indian matters than the former, and a more sober critical imagination than the latter, his admirers may fitly claim that his work is the indispensable supplement of both. It should certainly be included among the prescribed text-books, wherever the History of Institutions forms part of the University curriculum.

Grammatical doctors, like other doctors, are wont to differ. In the controversy about correct English, to which I alluded last month, several writers were very severe upon the 'solecism' of using a single possessive, where the meaning suggests two. Yet here I find such an authority as Mr. G. A. Sala writing as follows. "He says that the lines he quotes were a translation...of 'a Greek epigram of Lord Erskine's', by which I apprehend he means an epigram of Lord Erskine. Dual genitives are objectionable"!! I certainly allow that such constructions are cumbersome and inelegant; but with all due respect to so high an authority, I must submit that the aesthetic point of view is the only one from which they are objectionable. It is not merely a question of taste but one of meaning. In passages where the second possessive may properly be dropped, the 'of' is really not a possessive at all. The best test is to try the possessive inflection. 'The epigram of Lord Erskine' equals 'Lord Erskine's epigram'; but 'an epigram of Lord Erskine' cannot be so transposed. In fact the latter phrase stands for 'an epigram by Lord Erskine'. In this case there is a combination of possession and selection, and the appearance of a double possessive is deceptive.

In the same article Mr. Sala, who, if he has a reputation for anything, is famous for an extensive and varied vocabulary, shows a curious ignorance of a simple word. He says, "Dr. Tanner also mentions turpentine 'stupes', but that medicament I never met with". The inverted commas shew that *stupes* is the poser, but if Mr. Sala had been brought up in an English-speaking nursery, he would have known the word as well as he no doubt knows the thing. Stupes are simply cloths, generally flannel, dipped in hot water, medicated or otherwise, and applied as fomentations.

I find I have made a note of another of Mr. Sala's lapses, and I may as well notice it, as it may turn out to be of considerable historical interest in connexion with the Indianizing of English manners and customs. The news may have percolated to the East,—perhaps Reuter may have deemed it of sufficient importance to telegraph,—that the recent tropical heat has led to the introduction and rather extensive use of the *cummerbund*, and the temporary banishment of the national waistcoat. Dealing with this innovation in his own amusing way, Mr. Sala thus commits himself. "Please to bear in mind that in India cummerbunds are openly donned only by domestic servants, peons, and irregular troops. European tradesmen in the East often sport cummerbunds in conjunction with clothes, a mode of attire scrupulously eschewed by the Anglo-Indian swell, save only when he is on ship-board". Our author has evidently taken his classification of cummerbund-wearers from 'Hobson-Jobson', but the learned authors of that amusing work do not say that these are the only persons who wear it openly: they say that these classes 'habitually wear it in an ornamental form.' But let that pass. The statement about Anglo-Indians would seem to show that even Mr. Sala had only been a cold-weather visitor to your shores. Putting the civil population on one side, the cummerbund with white clothing and no waistcoat is the regulation hot-weather dress of the whole Indian army. Had our much-travelled author ever dined at a regimental mess, a masonic banquet, or family dinner, or attended a concert or similar function during the hot weather, he would have found cummerbunds galore; and he would also have learned that it is a mistake to say that "the proper hue for a cummerbund is crimson." There cannot be said to be any proper universal hue, though certain colours are appropriated to certain costumes. Thus the Infantry cummerbund is crimson but that of the Artillery is blue. Mr. Sala also commits the solecism, of talking of a solar topee, which all lends force to the injunction, *Ne sutor*.

I think, however, that in this age of societies, one might very advantageously be formed for "The dissemination of correct views about common Indian subjects." Here is the sort of stuff to which papers of the standing of the "Daily Telegraph" and the "Pall Mall Gazette" commit themselves. "Quite the most interesting personage rewarded by Lord Harris for acting as a 'loyal citizen' during the recent Bombay riots was her dusky majesty, Sophia, Queen of the Sudees. The Sudees are a band of African women who have come in great numbers to India, where they act as sailors and stokers in the steamers, and do other work usually performed by the opposite sex. These Amazons are more remarkable for strength and turbulence than for personal charms, but they yield implicit obedience to their Queen, who has shown herself so loyal to our Empress-Queen that she and her two husbands—called kings by courtesy—have been presented with crowns by the police, which crowns they don with their State robes when holding their receptions." Sending Indian news of this stamp to India is certainly not sending coals to Newcastle; for it will enable the Bombay guides to make preparations for exhibiting the Amazons to the approaching crowd of Globe-trotters.

The question of cow-killing is certainly one of the day, and although I am glad to say that there has been a very evident desire on the part of the best portion of the English press to deal with an unfamiliar subject fairly, yet there is an evident difficulty in understanding the strength of the hereditary Hindu antipathy to the slaughter of the sacred animal. Yet it demands but a very slight acquaintance with history to learn that the tenets of the Gaurakshini Sabhas are no new thing. Not only were they strongly held, but they were enforced with a terrible and perfervid religious zeal which is now happily impossible. In Mr. Tupper's book there is a passage on this subject which I may be excused for quoting, being so apropos. It occurs in the chapters in which he gathers together impartially the characteristics of Indian rule,—Muhammadan, Maráthá, Sikh, and the rest,—which have disappeared under the Protectorate. He says:—"Less than thirty years ago a certain state was under the administration of an incapable council of regency. Gang-robbery and other violent crimes were rife, and the son of one of the members of the council was sent into the districts for the purpose of hunting up offenders. He began well, but presently constituted kine-killing a capital offence, and inflicted barbarous punishment on captured offenders. One man, after being beaten and tortured till he confessed to having eaten cow's flesh, was tied to the leg of an elephant and dragged along the ground until he

was flayed. He was then buried with his head above ground and left to die of starvation. I am bound to add that when the son of the member of council was tried some years later for having ordered this atrocious execution, he was acquitted. He was, however, convicted of having caused another prisoner, accused of the same imaginary offence, to be tortured by the extraction of two of his teeth. This man died two or three days after the outrage. The son of the member of council was brought before the Political Agent and made a full confession: Perhaps, people unfamiliar with Indian society might have some difficulty in believing that native governments could treat the slaughter of kine as an offence of the first magnitude. I therefore quote from the Quarterly Report of the Proceedings of the State Council, Kashmir, from April 18 to July 31, 1889 (published by authority) the following passage: "On a suggestion made by the judicial member of the council, six prisoners from the Jammu jail and four from that of Srinagar were released in honour of his Highness the Maharajah's birthday, *preference being given to life-convicts for cow-killing, who had undergone eight or nine years of their term of imprisonment.*" The italics are mine.

I came across a much earlier instance of this respect for the bovine race in an old collection of travels that I picked up the other day. It is in seven stumpy little volumes, written in French, and published at Amsterdam nigh 200 years ago. The voyages are all those of early Dutch mariners at the time when the Dutch first went a-roving in eastern waters. This particular incident happened on the shores of an island with which the Dutch had afterwards much to do, Ceylon. In May 1603, some vessels of that nation were lying on the coast, awaiting the return of messengers sent to the King of Kandy in the interior. Meanwhile they were hard pressed for provisions, the local chief not keeping up to his promise of supplying venison, wild pig, and other such dainties. Accordingly (I am giving a condensed translation), the sailors went into the woods with their guns and killed some small cattle, which they brought aboard. These proceedings much displeased the inhabitants, who complained loudly. The next day the Vice-admiral landed and offered to pay for the cattle, saying "that since they would not sell them, and he for his part could not do without them, he had taken the plan of killing them first and paying for them afterwards". Two days afterwards he sent his people ashore to shoot some more. The inhabitants, however, having heard of the project, quickly assembled and made a terrible disturbance, absolutely refusing to receive payment of any kind. The visitors sought the local Rajah and begged permission to kill the animals on payment. The Rajah answered in anger that they had very much displeased him, and that he was deeply grieved to see that, after

having come to his country as friends, they had acted not only as enemies but even worse than the Portuguese—they it was who ‘fired the air’ in India in those days,—for they had abstained from such violence. For themselves, they would rather die than suffer such injustice. Some of the people said that ‘the spirits of the animals that had been killed, had gone straightway to hell’. At last, however, the chief said that, if they would promise not to do it again, he would forgive the past, and send them aboard every day as much rice and fruits as they could eat. We are not in a position to say that what followed was the result of this indiscretion; the Dutch themselves seem to have been quite in the dark about the cause. The fact, however, remains that within a month the Vice-admiral and many of his chief officers were massacred by those who had always before been so friendly.

I gave last month the constitution of the Congress of the United States; here are similar figures for the French Chamber. Out of a total of 483, the various branches of the legal profession can claim 129, there are 53 doctors, 38 journalists and literary men by profession, 11 professors, including the premier, and no fewer than 48 officials and ex-officials. Of the more substantial classes, land-owners, a very comprehensive title in France, number 91, manufacturers 28, farmers 13, and labour members 17.

The last published volume of the Census Report for England confirms in a very startling manner the continued progress of ‘the divorce of labour from the soil’. The migration of the agricultural labourer from the country to the already congested towns continues apace. The number of workers actually employed upon the land decreased over 10% in the decade. As a correspondent of ‘The Times’ points out, “One out of every five men who in 1871 worked and lived upon the land has now gone from it”.

Misprints are a perennial source of annoyance to writers and not infrequently of amusement to readers. The ‘Daily Chronicle’ the other day, in the midst of a highly laudatory notice of the works of the late Mr. Francis Adams, spoke of them rather inappositely as “the vapid outpourings of a man of genius”. The apology came the next day. ‘Vapid’ was a misprint for ‘rapid’. I noticed a more unfortunate and unapologized-for misprint in the same journal. Speaking of the Socialist Congress a few weeks ago, it intended to say that somebody presided over the ‘diet’. Unfortunately the last word got printed ‘dirt’.

Apropos of printers’ blunders, the following is one of the best examples of what there is no other name for but ‘cheek’, that has amused the literary world for a long time. A reverend gentleman, whose name, unfortunately for him, lent itself admirably to the title prefixed by “The Times” to the correspondence,—“Borrowed Plumes”—published recently a book, one of the most highly praised and eloquent passages of which turned out to be quoted, without acknowledgement, from a work by the popular novelist, Mr. Gissing. Brought to task, Mr. JAY, for that is his name, writes to the “Times” to explain that “printer’s carelessness is responsible for the omission of the commas”: and thus concludes:—“I gladly, however, offer him my apologies, though I should ask none from him in similar circumstances!”. The idea of Mr. Gissing wishing to appropriate the eloquence of Mr. Jay, even with acknowledgement, is distinctly a stroke of genius. One thing is certain: such a borrowing would stand a much better chance of not being found out.

Science Teaching—of the kind loosely called Technical—is, as my readers are aware, under theegis of both the Educational Department proper and the Science and Art Department of South Kensington. Under the former come those schools for older Scholars teaching the specific subjects of the Code to pupils in the standards. The encouragements now offered have led to a very notable beginning here, enough to point to great extension in the near future. Thus the number of schools taking elementary Science as a class-subject has risen from a paltry 173 to 788. Again 90,794 girls have earned a grant of 4s. for Cookery; and 2,766 girls (as against 662 in 1891) earned the grant of 2s. for Laundry work.

Turning to the Report of the Department of Science and Art, we find the numbers rapidly progressive. The following table gives the comparative figures for ten years ago, 1891 and 1892 respectively.

	1883	1891	1892
Schools	1,421	2,164	2,553
Classes	5,281	8,568	10,352
Pupils	72,054	148,408	180,410
Persons Examined	54,204	93,659	108,858
Papers Worked	79,551	179,549	203,347
Papers Passed	52,651	115,619	136,778
First Classes in Elementary and Advanced	12,557	28,448	35,932

To show the relative popularity (based on a combination of ease and utility) of the subjects I give all those in which the papers worked exceed 5,000 each. Practical P. and S. Geometry, 29,007; Machine Construction and Drawing, 15,852; Building Construction, 5,486; Mathematics, 29,051; Theoretical Mechanics, 7,351; Applied Mechanics, 5,028; Sound, Light, and Heat, 6,836; Magnetism and Electricity, 14,419; Inorganic Chemistry, 21,578; Inorganic Chemistry, Practical, 10,961; Animal Physiology, 8,172; Physiography, 21,944; Agriculture, 6,489; Hygiene, 5,429.

Coming to Art, we find first Elementary Schools; for in them the Art is not, like the Science, under the Department. During the year, Drawing was in process of being made compulsory in all Boys' Schools. Thus the numbers taught Drawing rose from 11,70,340 in 6,212 Schools in 1891, to 19,74,152 in 18,288 Schools in 1892. The year was only the second in which Manual Instruction was recognized in Elementary Schools. In 1891, there were 2,568 instructed in 63 Schools; in 1892, 8,905 in 169 Schools.

The total number of recognized Art Schools was 1,546 with 115,848 pupils, as compared with 1,211 schools with 100,031 pupils in 1891. The total number of papers worked at the Examinations were 126,143, of which 54,182 were successes. The chief subjects were Free-hand, 56,394; Model Drawing, 28,794; and Perspective, 13,688.

May I ask you to enshrine in your pages, and my readers to enshrine in their hearts the last great and pregnant watchword of Mr. Gladstone? Let no one say this is politics. Far be it from me to introduce politics—in any ordinary sense of the word—in these pages. But the struggles of humanity, the probing of the sores which are our common heritage of woe, the sympathy and cheer that make the whole world kin, are not politics. If I quote Julius Caesar, or Marcus Aurelius, or Akbar, or George Washington, I am not accused of dragging in politics. Why then should it be politics to quote the only man of our day and generation who can truly be called "great"? It has been the remark of friend and foe alike that whenever he has touched this Home Rule controversy, he has lifted it above the mundane plane, where little men with little minds are squabbling about little ways of righting great wrongs, and made it part of the wide world-problem. From his Pisgah-top he takes a sweeping view Northward and Westward and Southward and Eastward "unto the utmost Sea"; and he sees "the legions trampling on, not the legions of the eagle and the repeating rifle, but the legions of

workers struggling for a living wage", and he comprehends clearly what others are beginning to see as in a glass darkly, that the burden of the Irish Cottier is the burden of the English Miner and the Pittsburgh Iron-worker, of the Polish Jew and the Russian Moujik and the Indian Ryot. And in the peroration of his last great speech—it may be the last great speech of a life fertile above all others in epoch-making deliverances—he sums up a world of true worldly wisdom in a simple sentence. "We have faith in rational liberty, and we have faith in its efficacy as an instrument of national education." I might preach a sermon with as many heads as a covenanting divine could devise on so pregnant a text, but I only ask our young men to ponder it, and while ever working towards its wide possibilities to be constantly guided by its wise limitations.

REVIEWS.

LORD CLIVE; by Colonel G. B. Malleson. O. S. I. Oxford at the Clarendon Press. 1893. 2s. 6d. (*Rulers of India*.)

WE have read with much pleasure this volume in the *Rulers of India* series, and have nothing but praise for the skill with which Colonel Malleson has packed into so small a compass a complete and accurate narrative of Clive's career. We heartily recommend this book to the notice of our readers. It ought to be in the hands of every Indian student. The dark colours which Macaulay used in depicting the early years of Clive are here softened into greyish tones, but the most partial biographer is compelled to admit that there was a strain of melancholy in the character of Clive which made him a morose young man and led him at the age of fifty to take his own life. The truth is that Clive was roused to action only when he had an overwhelming task before him. He was at his best fighting against heavy odds. It is well that there are such men, but the more estimable character and, in the end, the more valuable citizen is he who steadily plods through routine work, because it is his duty to do so.

The part of Clive's career which teaches the most forcible lesson to the statesmen of the present day was the mutiny of the officers of the Bengal Army in 1766. This is not an isolated instance of rebellious impatience on the part of Europeans in India. In 1809, the officers of the Madras Army mutinied. In 1859 when the Company's European regiments found themselves transferred to the service of the Crown, they refused for a time to serve. When Lord Ripon was Viceroy much treason was talked by Europeans in Bengal. Only the other day the

ELEMENTS OF PSYCHOLOGY by James Mark Baldwin. London: Macmillan and Co: 1893. 7s. 6d.

This work is an abridgement of Professor Baldwin's *Handbook of Psychology*, and is intended as a text-book for use in universities. The arrangement of the subject is almost the same as that followed in the larger work, the chief alterations being the placing the account of the nervous system at the beginning of the book, and the relegation of the chapter on elaboration to the end of the second part. The expositions have been simplified throughout and a short glossary of terms precedes the first chapter.

As a text-book we can recommend this work as giving a clear and comprehensive account of the subject treated, and as capable of affording an excellent foundation for more extended study. Many critics of the *Hand-book* object to Professor Baldwin's treatment of feeling. The theory which he upholds is that feeling-qualities are original subjective facts, as opposed to the intellectual theories which hold that all feeling is ideal feeling, and physical theories which regard emotion as a biological function.

In his preface Professor Baldwin says he hopes that all his critics may be converted, and we are inclined to think that his general definition of feeling as the subjective side of any modification whatever of consciousness is an improvement on most of the explanations that have been given of this much-disputed term.

The exposition in the *Hand-book* of belief as a feeling of *resolved doubt*, has been generally approved and remains unaltered in the manual. The term *apperception* is used to "express the broadest act of mental relation", and Professor Baldwin tells us that "this use of the word...is of great importance and value". We confess we are unable to agree with our author on this point, as the introduction of the term appears to needlessly complicate the subject; moreover *apperception* has had more than one meaning in the history of philosophy. The word as here used will not, however, puzzle the student, as Professor Baldwin defines and explains it with the greatest clearness. Indeed this manual seems to us to possess the two great merits of lucidity of exposition and excellence of plan.

EDWARD THE FIRST by Professor T. P. Tout. London: Macmillan & Co.: 2s. 6d. (*English Statesmen Series*.)

The life of the greatest of the Plantagenet kings of England is a subject well worth the pen of a historical biographer, and Professor Tout is much to be congratulated on the choice of a subject. The work

under notice is written in a most masterly style, and will be found exceedingly valuable to all historical students, and especially to those who have reason to make the Thirteenth Century a special subject of study. The chapters dealing with Edward's boyhood and early life, and with the incidents of the Crusade, which formed so eventful and interesting a portion of the king's early life, are the best in the book, though perhaps this impression is due to the fact that the information therein contained is fresher and less well-known than the events of the reign of this sovereign. We should have liked a longer account of the Barons' War, and of the relation between the two greatest English statesmen and soldiers of the century, the subject of this work and Simon de Montfort, Earl of Leicester. To this latter grand personality Professor Tout hardly seems to have done sufficient justice, and this appears more noticeable when we reflect on the influence which the principles and example of the first great English Parliamentarian had on the policy of the succeeding reign.

The great mass of beneficent legislation which distinguished the Parliaments of Edward the First from all other English Parliaments of the Middle Ages was a practical echo of the aims and principles for which 'Simon the Righteous' lived and fought and died, and the mantle of the great prophet of reform fell on the shoulders of the young prince whose far-sighted courage and military skill had crushed the prophet, and for a time drowned his schemes in the blood of Englishmen. To Edward's legislative and administrative ability the writer does full justice in a chapter full of well-weighed observations and philosophic continuity of thought. He rightly defends this King's right to the title of the English Justinian, and marshals the great legislative facts of the reign with admirable accuracy of detail. The difficulties which arose between King and Clergy and Nobles are fully commented on, and discussed in a chapter in which the author displays a vast amount of erudition, and makes good use of the mass of material at his hand.

The Conquest of Wales and Scotland and Edward's military skill are dealt with in an exhaustive manner, and this portion of the work is rendered more interesting by the inclusion of certain details and scraps of less important information not to be found in works of general history. In the Conquest of Wales this great sovereign displayed the courage of a warrior, the wisdom of a great statesman, and the skill of a diplomatist in advance of his age, and the truth of this remark is especially to be seen in the policy of judicious conciliation and high-souled moderation displayed in dealing with the conquered. As Professor Tout points out, the policy which resulted in the eldest son of the King of England being specially designated "Prince of Wales" did

more than anything else to reconcile the Welsh nation to a foreign domination; while the magnificent "Round Table" tournament at Nevin in Carnarvonshire, where Edward welcomed and honoured Welsh bards and knights, recalled the traditions of King Arthur, whose crown was very opportunely discovered near Snowdon shortly before the tournament. The Welsh national pride received a salve for its wounds, and the more politic bards professed to see in King Edward's coming the "Return of Arthur" prophesied of old. With regard to Scotland we think that the historian does not lay sufficient stress on the incompleteness of its conquest, and on the fact, which recent research has disclosed, that Edward's power in Scotland was at no time so great as some historians have professed, and that the attempt to conquer the Scotch people was the one grand failure which broke the continuity of the King's success and good fortune.

Professor Tout does not fall into the error of excessive hero-worship which has marred the work of the most distinguished of biographers, and on this fact he is to be much congratulated.

The character of the greatest of the Plantagenets would lose in grandeur by an attempt to apologize for, or argue away, the grand defects which invariably mark such an individuality. Edward's pride frequently becomes arrogance, his stern sense of justice often exaggerates itself into mercilessness, while his sense of greatness is ever perverted into a too great love of aggrandisement and a too great leaning towards tyranny.

The author's style sometimes lacks vivacity, and the real interest of the work loses something by the dead level of serious statement and deduction which goes on page after page without relief. Without wishing to degrade history by the least taint of what is known as the modern humour, as one writer has done, we think that the discussion of any science is relieved by occasional brilliancy and epigrammatic brightness such as delights us in the pages of John Richard Green.

This work is, however, a most valuable addition to any history library, and as such will be welcomed by history students.

A COMPANION READER TO ARDEN'S PROGRESSIVE TAMIL GRAMMAR, by the Rev. A. H. Arden, M. A.; Madras, S. P. C. K., Vepery; and London, Kegan Paul, Trench, Trübner & Co.: 1893. Rs. 3½ or 5s.

This book contains exercises bearing upon the text of the author's work on grammar. They are arranged to suit the convenience of English-speaking foreigners either employed or to be employed in India. To natives actually speaking the Tamil language these exercises would be of little or no practical use. Part I. contains simple disjointed sentences;

while Part II. contains narrative paragraphs. Although written by an Englishman, the vernacular portions are singularly free from mistakes of idiom, and all the passages are carefully graduated. The book should be found of great service to Englishmen and Eurasians learning Tamil, and comes at an opportune time when such a premium is being set on Tamil by the Eurasian and Anglo-Indian Association.

ARDEN'S TAMIL READER, Volume II., by the Rev. A. H. Arden, M. A.; Madras, S.P.C.K., Vepery; and London, Kegan Paul, Trench, Trübner & Co., 1893. Rs. 3½ or 5s.

This book contains the Tamil *Panchatantra* (five chapters) neatly printed; and the English translation and notes appended to each chapter are likely to command general approval. The Tamil Text is printed, not with Sandhis, as was the fashion years ago, but without Sandhis, which is a great convenience to a foreign learner. The notes are clear and short, with easy references to the Tamil Text. This work, intended for use by English learners, is likely to be of service also to native students, who would find in it the sort of English at which they should aim when translating vernacular passages into English.

A DREAM AND OTHER POEMS by Hafed. Madras; Srinivasa Varadachari & Co., 1893.

These four poems are regardless alike of metre, rime, and reason, and possess, to the best of our knowledge and belief, the unique distinction of being the very worst poetry that has ever yet had the honour of appearing in print in the English Language

BOOKS RECEIVED.

THE TEACHING OF DRAWING by I. H. Morris, Art Master. London: Longmans, Green, & Co., 1893. 4s. 6d.

ENGLISH SYNTHESIS by The Rev. J. H. Walton, with a Preface by The Hon. The Rev. W. Miller. Madras: Addison & Co., 1893. Rs. 1-4-0.

A MANUAL OF MUSIC by Ralph Dunston, Mus. Doct. (Cantab.) Thirteenth Edition. London: W. H. Allen & Co., 1893.

HISTORY OF INDIA from the Earliest Times to the Present Day by H. G. Keene, C. I. E.: in Two Volumes. London: W. H. Allen & Co., 1893. 16s.

ORIENTAL MUSIC in European Notation, a Monthly Periodical, edited by A. M. Chinnaswami Mudaliyar M. A.: Madras: 1893. Nos. I-VI. Rs. 3.

MANUAL TRAINING EXERCISES by W. Hewitt B. Sc.; Part II; London: Longmans, Green, & Co., 1893. 2s. 6d.

SHAKESPEARE'S JULIUS CÆSAR, edited by T. Duff Barnett B. A. (London) G. Bell & Sons: 1893. 2s. (Bell's English Classics.)

BYRON'S CHILDE HAROLD, with Introduction & Notes by H. G. Keene, Hon. M. A. Oxon, Fellow of the Calcutta University: London G. Bell & Sons. 1893. 4s. (Bell's English Classics.)

LAMB'S ESSAYS OF ELIA A selection with Introduction & Notes by K. Deighton. London: G. Bell & Sons; 1893 (Bell's English Classics.)

MADRAS EDUCATIONAL NOTIFICATIONS.

Appointment.

Ootacamund, October 10, 1893.

Surgeon-Lieutenant-Colonel William Richard Browne M.D., to act as Principal Professor of Medicine, Medical College, Madras, during the absence of Brigadoon-Lieutenant-Colonel W. Price, M.D., on leave, or until further orders.

University.

In the list of text-books prescribed in Hindustani for the B. A Degree Examination of 1894-95.—

For "Fasāna-e-azād (Volumes 1 and 2)" read "Fasāna-e-azād (Volume 1)."

SENATE HOUSE, 13th September 1893.

(By Order.)

U. C. S. Examinations.

With reference to the revised Notification regulating the Upper Secondary Examination, published at pages 1163-1166 of the Fort St George Gazette of the 10th October 1893, it is hereby notified:—

(1) that there will be no examination in May 1894;

(2) that all candidates who have passed in only one or two or three of the compulsory subjects under the old Notification will have to bring up all the remaining compulsory subjects at one and the same examination, the fee to be paid being for those who bring up three subjects Rs. 10, for those who bring up two subjects Rs. 8, and for those who bring up one subject Rs. 4.

Office of the COMR. FOR THE U. C. S. EXAMINATIONS, Madras 28th. October 1893

Educational Books.

Notice is hereby given that copies of the following Educational books have been received at the Office of the Director of Public Instruction, where they may be seen at all reasonable times:—

English.

LETHEBRIDGE (SIR R.), HISTORY of INDIA, Messrs. Macmillan and Co.	£ s. d.
TAYLOR (H. M.), EUCLID BOOKS V and VI. Camb. Univ. Press	0 1 6

French.

BÉDOLLIÈRE (E. DE LA), HISTOIRE DE LA MÈRE MICHEL (W. H. WRENCH), Messrs. Percival and Co.	0 0 8
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German.

WILDENBRUCH (ERNST VON), HAROLD (A. VEGELIN), Messrs. Rivington, Percival and Co.	0 2 0
LECHNER (A. R.), EASY READING IN GERMAN, Messrs. Rivington, Percival and Co.	0 2 0
PAULI (REINHOLD), ROBERT BLAKE UND CROMWELL (C. W. S. COPPER), Messrs. Rivington, Percival and Co.	0 2 0

Sanskrit.

YADAVAPRAKASA, VAJAYANTI WITH SANSKRIT-ENGLISH VOCABULARY (G. OPPERT), The Madras Sanskrit and Vernacular Text Society	Rs. 15 0 0
SAKATAYANA, SANSKRIT GRAMMAR WITH PRAKRIYASANGRAHA (G. OPPERT), The Madras Sanskrit and Vernacular Text Society	10 0 0

Telugu.

VENKAYYA, RAMA RAJAYAMU OR NARAPATI VIJAYAMU (G. OPPERT), The Madras Sanskrit and Vernacular Text Society	1 4 0
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Office of the Director of Public Instruction, Madras, 25th September 1893.

THE INDIAN JOURNAL OF EDUCATION

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(New Series)

DECEMBER 1893.

No. 84.

The Editor has to remind all LITERARY correspondents, as well as publishers forwarding books, magazines, etc., for review, that, to ensure attention, they should be addressed to him at PACHAIYAPPA'S COLLEGE, MADRAS; and, for publication or notice in the succeeding issue, should reach him not later than the 20th of each month. No unsuitable contributions will be returned. All BUSINESS communications should be addressed to the Publisher.

EDITORIAL NOTES.

Another of India's brightest sons has passed away. First it was Telang: now it is Ranganadam. Silence and gloom reigned over Madras when it transpired that "The Prince of Graduates" had been struck down in the very flower of his manhood. Those of us whom he had conversed with, and written to, a few days before his death could hardly realize the news. All was so strange, so sudden, so unreal. Rai Bahadur P. Runganada Mudaliyar, M.A., has left in Madras Society a void that no one other man can ever hope to fill. His towering preëminence as an educationist and his great and varied culture, made him the heart and soul of the great educational move-

ment of our time among the Hindus of the South. As modest as he was great, when only recently there was a tie between himself and the Hon. the Rev. Dr. Miller at the election held in the Madras University to select a representative for nomination by His Excellency the Governor to the Madras Legislative Council, he generously gave way to Dr. Miller. Our view of the situation on that occasion, and of Mr. Ranganadam's high qualifications, have been already stated. In the very last number of this Journal, on the staff of which his loss will be sorely felt, with characteristic self-effacement, he insisted on having his name removed from its wonted position at the head of our Mathematical pages. Mindful, to the last, of the interests of students and of graduates, he was engaged in preparing for this Journal information of various kinds that would be greatly to their advantage. The following is an instance. Mr. Ranganadam had undertaken to collect, and had set about collecting, evidence of the most cultured native opinion on the question of "Teaching Universities for India." Having ascertained this, he then intended to convene a meeting of the Madras Graduates' Association for the purpose of there discussing the question in greater detail. The general results arrived at there, he intended to embody in a paper to be published early next year in this Journal. Of the importance of this question to the Indian Education of the future, nothing need be said here now, as it is sufficiently obvious. Mr. Ranganadam had in view great educational and literary projects with which he wished his name to go down to posterity; so that, in one sense, he may be regarded as an "inheritor of unfulfilled renown." But "great" he already was in all that constitutes true greatness; and it now remains for his friends to do something that will keep his memory green. Uniting in himself, as he did, the offices of Trustee of Pachaiyappa's Charities, Professor of Mathematics at Presidency College, Fellow and Syndic of the University of Madras, Municipal Commissioner, Tamil Translator to Government, Honorary

Secretary of the Cosmopolitan Club and of the Madras Branch of the National Indian Association, Vice-President of the Madras Graduates' Association and of the Madras School of Music, to say nothing of minor offices, it will be seen at a glance what his loss to the community means. With good reason may the country lament the loss of one of her greatest sons, whose genial character, courtly bearing, ready counsel, and cultivated mind, endeared him to all men who had the honour of his acquaintance.

* * *

There are few rules that have not, and that should not have, exceptions; and to the rule that High Schools in the Town of Madras should not receive the usual Grant-in-aid there are strong reasons why an exception should be made in the case of Pachaiyappa's High School. In accordance with the intentions of the great and charitable Hindu in whose name the institution was originally founded in 1842, the education originally imparted at Pachaiyappa's Central Institution was *wholly and entirely free*, and intended for the poor of the Hindu community. All the cost of working the institution was met from the endowment, and no fee was exacted from any pupil. It was not until 1849, the numerical strength having meanwhile risen so high as 882, that it was suggested to the President and Trustees that the Institution having been established for the benefit of the poor, it would be but just to enforce the payment of a fee by the rich for the tuition of their children and thereby extend the benefits of the Institution to more deserving objects of charity. A fee was therefore imposed, but in those early days Madras was not yet ripe for it: the attendance fell off and the fee was abolished. Not until 1856, when additional accommodation and an increased staff became necessary, was the fee—and even then a fee of only 8 annas—finally imposed in the Madras School. For years afterwards the Branch Schools remained entirely free. The whole and sole *raison d'être* of levying any fee at all was to collect contributions from the rich and thus enable the Trustees to offer a better free education to the poor. This was the policy pursued by the Trustees till 1884, when "The Powers that Were" startled the Educational world by launch-

ing on its perilous course a new *Term Fee Notification*, and by insisting on its observance as an indispensable condition of recognition under the Madras Educational Rules. The new Notification practically annihilated the free education of the poor—the whole *raison d'être* of the original existence of Pachaiyappa's *Educational Charities*—by insisting on the levying of a uniform rate of fees from *all* pupils (provision being made for only a small percentage of *free* scholars, a class thenceforth recognized by Government in all institutions alike), and by insisting that this fee should be a *Term* fee, levied at beginning of each Term, or by only a few instalments, instead of a monthly fee. Great and general as was the opposition evoked by this *Ukase*, by far the most earnest and strenuous opposition of all was that offered by the Trustees of Pachaiyappa's Charities, both as leaders of the people and as guardians of the poor. In order, however, to secure for their pupils the necessary educational advantages, they finally submitted under protest. But ever since that time they have faithfully followed the Government system; and all their institutions have now been long recognized as carrying out in their minutest details all the requirements of the Madras Educational Department. To keep the School Department in the state of high efficiency required by Government Rules, an enormous increase in the expenditure has become necessary. Yet as pointed out by the Trustees in their recent Report for 1892 “The High School received no aid from the State, though it is one of the oldest institutions in this City and fulfils all the conditions laid down in the Madras Educational Rules and the Grant-in-aid Code. The Trustees hope that a larger proportion of the outlay that is indispensable for maintaining in efficiency their long-standing and well-equipped Institutions will be met by increased grants from the State. Without such support, it is not possible to preserve the balance between income and expenditure, nor is it possible to reduce the outlay, as educational work cannot be contracted and expanded at pleasure.” Lord Wenlock's reply, an authentic report of which is given on another page with our account of the anniversary at which he presided, although couched in sympathetic language, amounts to *Non possumus*. The Government purse is not long enough to reach the Madras High School of Pachaiyappa's Charities. There the matter rests for the present. But we hope that when Government looks

more closely into the nature and history and present condition of these Charities, and its purse is somewhat longer, it will see its way towards making a special concession in the direction indicated by the Trustees.

In the first of two recent articles on “The System of Education in India,” *The East Coast News* says:—“When a Government takes upon itself to educate the people it must be with a definite object; and can this be any thing else than training the youths of the country for entering (*sic*) its service.” We have not selected this sentence as an instance of bad spelling (*or* misprinting), or of faulty punctuation, but as an example of the erroneous theories on which both the articles are based. All the Governments of the civilized world have taken upon themselves the education of their people—some only in the primary grades—some even to the highest—all assuredly “with a definite object.” The idea that such an object should be the preposterous one of training the young merely to enter the service of the State needs but to be formulated in order to stand self-condemned. For example, in England primary instruction is compulsory. Does anybody suppose that every child, merely because obliged by the State to attend a primary school in England, is, later on, to be taken into the service of the State? In this country, His Highness the Gaikwar of Baroda has of late made primary instruction compulsory in his State; and the same argument applies. In France, the State superintends education of all grades from the lowest to the highest, but nobody expects it to provide snug berths for everybody that passes through its *lycées*. Every good and progressive Government fosters education of all grades, not in order that the students who pass through Schools and Colleges should enter its service, but that they may turn out good, useful, and well-informed citizens when they enter the arena of life. The sooner this very prevalent misconception, so roundly stated as an incontestable axiom, now by *The East Coast News* and at other times by various other organs, is finally removed from the minds of the Indian public, the better will it be for the future of Education in this country. What we state is undoubtedly the view taken by all sensible men in all countries on the question of Public Instruction. That it is likewise the theory of the Indian Government regarding Public

Instruction in this country is clearly and abundantly evidenced by the numerous pronouncements of the Viceroy and of others responsible for the Government of the country, and latterly from the speech printed elsewhere in this number, recently delivered by His Excellency the Governor of Madras, at Pachaiyappa's College, on the occasion of the celebration of its fifty-first anniversary.

* * *

We strongly recommend "The East Coast News", *et hoc genus omne*, when in future publishing articles on Education, to take the precaution of seeing that the writer has at least some elementary knowledge of the system under which he lives, and which he undertakes to criticize. The writer of the article now in question, says in another place:—"It is time the Educational Rules were prepared after mature deliberation by educationists belonging to private as well as Government service." This clearly shews that he does not know that the Rules to which he refers have actually been drawn up, "after mature deliberation," by the most eminent private educationists in the Presidency in conjunction with Government experts. "They have no time for physical exercise or even for a walk in the open air." Physical exercise is not even optional, but is a matter of necessity, for every pupil in every school recognized under the Madras Educational Rules. It is pointed out as a defect "that the Government has the entire control of Education." There are Educational Institutions in this country that are not under the control of Government, and there is no reason why they should not be indefinitely multiplied. But Managers, knowing that institutions worked on independent lines would not be likely to get any Grant-in-aid from Government, and having a keen eye to the financial aspect of the question, naturally prefer a system which brings in aid from Government, coupled with the prospect—however remote—of Government employment for their pupils. Thus Government, having to pay the piper, has a right to choose the tune.

* * *

Such errors as those just pointed out are, perhaps, more pardonable in an ambitious young paper, as youth is characteristically reckless, than in a grave journal of the weight, responsibility and standing, of *The Madras Mail*. Yet in the comments of this latter organ on one of the points in Lord Wenlock's recent speech

at Pachaiyappa's College, viz., on the question of granting State aid to Pachaiyappa's Madras High School, omitting all minor points, we meet with such instances as the following of want of information regarding the first principles of the educational system under which we live. The Mail points out as a "fact that while new and possibly ephemeral schools, commenced under the auspices of Christian Missionaries, receive pecuniary aid from Government, an institution of native growth which has done excellent service to the cause of secondary education in Madras has been left out in the cold." It is almost superfluous to tell educationists that the "fact" is a pure fiction. None of the ordinary schools in the Presidency town now receives a Grant-in-aid for any ordinary purpose; and Government has always been above suspicion in the matter of favouring this or that party among its Indian subjects with regard to educational grants. Naturally enough, in the Madras Presidency as elsewhere in India, backward races receive special educational privileges from Government. Latterly, to encourage the normal training of School Assistants a Grant has been offered by Government for all trained teachers on the staff of every High School in the town of Madras. This has nothing to do with race or creed; and Pachaiyappa's Madras High School enjoys the benefit of the new rule just as much as any other institution in the town. From the title of its article *The Mail* seems to forget the existence of such things as Pachaiyappa's High Schools in the *Mofussil*; and that the point raised by the Trustees referred to their Madras High School alone. Aid is the rule in Mofussil Schools, and there Pachaiyappa's High Schools enjoy the same privileges as others. Even in Madras itself Technical Schools receive special grants; and here the Commercial and Technical High School attached to Pachaiyappa's College leads the van of such institutions both as regards its standing and the nature and amount of the grants it draws. "In that case it (Government) should withdraw all High School grants without distinction rather than do an injustice to the one which is oldest and most worthy of support." This is the result of starting from an erroneous assumption. "Considerable help has of late been given to Mission Schools." No more than they are justly entitled to by rules that are common to all.—All of which goes to shew that the public Press, with the best and most friendly intentions in the world,

may do much mischief by the publication of unfair criticism and unwarrantable insinuation contained in articles written without a knowledge of the facts.

Although we consider it our duty to point out these errors in *The Madras Mail* and *The East Coast News*, we do not for one moment wish it to be supposed that there is not large room for improvement both in the general system of education at present pursued by the Government of India, and in its special and local application by Provincial Governments; but we do not wish to see any system attacked for defects that exist only in the fertile imagination of the assailant.

On the various suggestions that have been offered for the improvement of the present system of education in India, and on the special wants of special Provinces, we shall have more to say at another time. But as regards the suggestion that moral instruction should be made compulsory throughout the whole range of the Indian educational system, we may at once state that any attempt to introduce such a thing as a soulless, colourless, general text-book on the subject, containing the boiled-down residuum of all the religions, being equally distasteful to all parties, would carry its own doom. That is a matter which, under the conditions that in our days prevail in India, cannot be undertaken by Government or even rightfully by any institution, not avowedly Missionary, in which all the teachers and all the taught do not profess the same creed; and which should therefore be left entirely to the sacred influences of the home. It is also very true that, in such a case as this, example is better than precept. The part that ordinary literature may be made to play in moral training was pointed out in an article in our last number. Further than that it would not be safe to go.

Mr. G. H. Stuart, M. A., Principal of Kumbakonam College, and now Principal *sub pro. tem.* of Presidency College, Madras, has been hustled about from Chair to Chair, according to the exigencies of local requirements and the passing whim of Directors, ever since his transfer to Madras. Mr. Stuart was fifth wrangler at the Cambridge Mathematical Tripos of 1874, and subsequently

Smith's Prizeman, and Fellow of his College. The Smith's Prizes are awarded to those candidates who present the Essays of greatest merit in their year on any subject in Mathematics or Natural Philosophy, and in this Mr. Stuart outstripped the Senior Wrangler of his year. As the Mathematical Chair is now vacant at Presidency College, Madras, the Madras Government has at last the chance of putting the right man in the right place. But if Government intends to seize the present opportunity of making a third "Provincial"—as opposed to "European"—Professorship, on the staff of Presidency College, in accordance with a proposal in the revised draft scheme quite recently forwarded by the Madras Government to the Government of India for the sanction of the Secretary of State for India, and reserve the appointment for a native of India, and if—as is most appropriate—the Mathematical Chair is the one that it is thus proposed to fill, then Mr. P. Sankaranarayana Chettiyar, M. A., M. B. A. S., now Senior Tutor to T. H. the Princes of Cochin, and Mr. B. Hanumanta Rau, B. A., now Lecturer on the staff of Kumbakonam College, the former as a man of proved Mathematical ability and as the only first class Mathematical M. A. since the founding of the Madras University, the latter as a capable and successful teacher and writer on Mathematics, occur to us as being far and away the two strongest and fittest candidates for the Mathematical Chair.

We offer our congratulations to Mr. C. Nagaji Rau, B. A., and to Mr. N. Vaidyanatha Aiyar, M. A., the first two graduates of the University of Madras to whom has fallen the honour of being elected by their fellow-graduates for nomination by His Excellency the Governor as Fellows of the University of Madras. Both are well-known as practical educationists. The former has for a long time been an active officer of the Madras Educational service, and for the last four years has shewn great energy and capacity as Inspector of Schools in the Northern Circle. The latter has acted in many educational capacities, and now holds the post of Lecturer on the staff of the Government College, Rajahmundry. The educational work of both gentlemen lies in the Northern Circars, far away from Madras; but we nevertheless hope that, as the first elected representatives of the body of graduates, they will, when nominated

ted as Fellows by His Excellency the Governor, not fail to be present at all meetings of the Senate.

* * *

We learn with amazement that at the recent Matriculation Examination held by the University of Bombay, the Arithmetic paper which was duly set at Poona on the prescribed day, could not be set on that day at Bombay because the heavy rain easily penetrated the ill and hastily constructed *pandal* in which the examination was being held in the latter city. The result was that a new Arithmetic paper had to be hastily made for the Bombay candidates. We may safely rely on the fairness of the Syndicate to see that no injustice is done to either set of examinees by their having to answer papers that vary in difficulty; but could not the Poona paper have been postponed by a simple telegram, and all this trouble and anxiety saved? In Madras, Calcutta, and elsewhere, the University has ample Halls at its disposal, and makes better arrangements. Where are all the boasted millionaires of Bombay?

* * *

We observe with regret that Mr. F. W. R. Fryer, c.s.i., c.s., Offg. Chief Commissioner of Burma, has expressed his inability to concur in the necessity of founding at an early date a Burma University. The arguments he advances are the old stock ones,—none of them very strong. But there is in his reply a paragraph—the last one—that holds out hope; and the Educational Syndicate of Burma have promptly and wisely taken advantage of it to address the Chief Commissioner again on the subject, and they meet his reasons *against*, with still more cogent reasons *for*. The paragraph that lets in the single ray sunshine is this:—“Although the Chief Commissioner is not able to concur in the scheme for starting a Burma University at once, he considers that the discussion of the question has been useful and has enabled an accurate estimate to be formed of the requirements of the Province. The consideration of the question is now postponed but the proposal is not definitely abandoned, and at some future time the Educational Syndicate may again address the Local Government if the difficulties of working under the Calcutta University become intense.” We now hope that when the scheme, slightly altered perhaps, and backed up by unanswerable reasoning, comes for a second time before the Chief Commissioner, he will see his way to accepting the opinions

of the majority of the most experienced Educationists in Burma; and thereby promote the best interests of the Province of which he is for a time the responsible head. In our next issue we propose giving further information on this subject.

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Directors of Public Instruction are generally very busy men; and being in most cases educationists of great experience, when they *do* make leisure to deliver a Lecture or an Address to Teachers, what they say becomes a matter of interest to all engaged in the profession. In our June number we gave an Abstract of a Course of Lectures on “The Philosophy of Education” recently delivered before the Johns Hopkins University, U. S. A., by the Hon. W. T. Harris, LL. D, U. S. Commissioner of Education. In our present number we publish an Address delivered in last October by Mr. J. van Someren Pope, M. A., Director of Public Instruction, Burma, before the Teachers’ Association, Rangoon.

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We have great pleasure in announcing to our readers that definite arrangements for the regular monthly supply of educational news from various Indian centres have now been finally concluded; and that, beginning with its next number, the Journal is about to enter on what we hope will be a new career of still greater usefulness to all who are connected with education in India and Burma. To meet the increased expenditure required by this new departure, it has been found necessary slightly to increase the rate of subscription to the Journal; but we hope that the quality of the matter will do more than compensate for this. The need of such a Journal forming a bond of union among all educationists under the Viceroy’s rule has long been acknowledged, and it was but right that the oldest educational periodical in India should make an effort to supply that want. We now look forward with confidence to the Educationists of India and Burma doing all that in them lies to make that effort a success.

THE LATE RAI BAHADUR P. RANGANADA MUDALIYAR,

With deep regret we have to record the death of Rai Bahadur P. Ranganada Mudaliyar, M. A., of Wexford House, Egmore, Madras, at 4-30 P. M. on Sunday, 10th instant. The deceased had been for a few days ailing from fever, the result of meningitis, brought about by excessive study and mental work. Surgeon-Major J. Maitland, M. D., was called in on Friday and attended him to the end. We are indebted to *The Madras Times* for the following account of his life, contributed by one of his oldest and most intimate living friends.

Born on the 29th July, 1846, the late Mr. Ranganadam received his early education in English and Tamil from his father, who was then the Manager of the office of the Madras Irrigation and Canal Company. At the age of thirteen, Mr. Ranganadam was sent to Pachaiyappa's High School, where he joined the Third Class, corresponding to the present Fourth Form, and he received his education up to the passing of the Matriculation Examination under Mr. Basil Lavery. While in the Matriculation Class, he competed for the special prize offered by the late Rajah Sir T. Madhava Rau, for proficiency in English and Mathematics, and won it with ease. Having matriculated in February, 1862, at the top of the list, he received a Stipendiary Scholarship from the Trustees of Pachaiyappa's Charities, and was sent to Presidency College, to complete his education, so as to pass through the portals of the University; and having studied there for three years, he obtained a First-Class Proficiency Certificate and took the degree of Bachelor of Arts in February, 1865, taking a very high place in the First Class. While a student at the Presidency College, the late Mr. Ranganadam experienced the kindness of the then Principal, Mr. Edmund Thompson, and the then Director of Public Instruction, Mr. E. B. Powell; and the late Mr. Justice Holloway, who was his Examiner in English Literature and Composition, used to say that instead of his having a command of English, that language had a command of him, because he could handle that language as readily as he could solve a difficult problem in Integral or Differential Calculus. The prizes and Medals that he received while at College are too

numerous to mention, and it is a noteworthy fact that in the last year of his College course he won all the prizes open to him, some fourteen in number.

Having had an exceedingly distinguished career in the College, the late Mr. Ranganadam entered the service of Government in July, 1865, as Assistant Master in Presidency College, where, two years later, he was appointed Assistant Professor. He took his M.A. degree in 1870. He then acted as Professor of Logic and Mental and Moral Philosophy for three years; and on Mr. Craig's return, Mr. Ranganadam was sent to Kumbakonam to act for the late Mr. T. Gopala Rau as Principal. Here he spent only a few months, when he was transferred to Bellary as the Head of the Provincial School. But it was after his promotion to a Professorship at Presidency College that his high attainments and ability as a lecturer came to be prominently noticed. Lord Napier singled him out in the year 1872 for a Fellowship in the University of Madras. The deceased held the appointment of Professor of Mathematics since 1884, though he acted occasionally before that as Professor of English History.

The belief is entertained by all who knew him that had he joined a more lucrative department of the public service, he would have become a District Judge or a Collector. As we have said, he was made a fellow of the University of Madras in 1872; and since 1875 he had been every year elected a member of the Syndicate. He was appointed a member of the Education Commission in 1882, in the work of which he took a very active part, which earned for him the title of Rai Bahadur. He was a member of the Educational Conference, and as a Municipal Commissioner for this city, for nearly ten years, he did excellent service. He was a member of the Fee-Notification Committee, and the founder of the Graduates' Association. As the Secretary of the Cosmopolitan Club for nearly twelve years, he had always made himself popular by the refined courtesy which marked his intercourse with his fellow-countrymen as well as his European friends in this country, of whom he had not a few. Only three years ago, he was appointed Tamil Translator to Government, and the honour of delivering the Convocation address to the Graduates of the University was conferred upon him by the Chancellor; while in 1892 he was appointed to the Shrievalty of Madras by H. E. Lord Wenlock. He was a Trustee of

Pachaiyappa's Charities, Secretary of the Madras Branch of the National Indian Association, Chairman of the Board of Studies in Dravidian Languages as well as in Mathematics and Natural Philosophy, member of the Committee of the Victoria Technical Institute, Madras School Book and Vernacular Literary Society, Physical Training and Field Games' Association, and many other Committees. The cause of Education in the Madras Presidency has lost in him a true and enlightened friend, the Senate of the Madras University one of its most useful members, and the Hindu community one of its brightest ornaments.

On the day after his death the Cosmopolitan Club, the United Native Club, Presidency College, and all Pachaiyappa's Institutions were closed in loving memory of the departed. Since then a large and representative meeting of leading men of all classes of the community was held at the Cosmopolitan Club, at which a Committee with two Secretaries, Mr. M. T. Quinn, M.A. of Pachaiyappa's College, and Mr. M. Viruraghavachariyar, B.A. of the *Hindu*, was appointed to take steps to perpetuate his memory. With that object in view it was arranged that the Sheriff of Madras should be requested to convene a public meeting of the citizens at Pachaiyappa's Hall towards the end of next month. Various suggestions were made at the meeting as to the form the memorial should take. A Hostel, a Mathematical Chair, a Scholarship, a Medal, were among the suggestions; but this question has been left over for settlement to the great public meeting to be held at Pachaiyappa's Hall.

PACHAIYAPPA'S CHARITIES, 1892.

The fifty-first Anniversary of these Charities was held on Tuesday evening, 21st ultimo, in Pachaiyappa's Hall, Madras, with His Excellency Lord Wenlock, G. C. I. E., Governor of Madras, in the Chair. Besides the Trustees of the Charities, the Professors of the College, and the staffs of the various schools under the management of the Trustees, there were present the Hon. Mr. J. H., Mrs., and Miss, Garstin; the Hon. Mr. J. Grose; the Hon. Mr. A. Mouro, M. A., Director of Public Instruction, and Mrs. Monro; the Hon. Mr. Justice Shephard; the Hon. Mr. V. Bhashyam Aiyangar; Mr. G. H., and Mrs., Stuart; Dr and Mrs.

Bradshaw; Mr. Eardley Norton; Col. G. M. J. Moore; Mr. Symonds the Rev. G. Pittendrigh; Mr. and Mrs. W. B. Morren; Mr. V. P. de Rozario; Mrs. Douglas; Mrs. Duchesne; the Rev. Mr. E. T., and Mrs., Davies; Mr. Basil Lavery; Mr. Somasundara Chettiyar, Ex-President of Trustees; Mr. Seshagri Sastriyar; and a crowded assembly of the educational and general society of Madras.

His Excellency, accompanied by Captain Lord Douglas Compton, A.D.C., arrived punctually at 5 P.M., and was received at the entrance by the Trustees and the Ag. Principal. His Excellency on entering the Hall was received with a regular ovation by the students assembled, and took his seat on the dais. The proceedings of the evening were opened with the singing of the National Anthem, after which the Report of the Trustees for 1892 was read by Mr. W. S. Venkataramanjulu Nayidu, the Senior Trustee, in the unavoidable absence, through illness, of the President, Mr. P. Ranganatha Mudaliyar.

Mr. M. T. Quinn, M.A., the Acting Principal, then read the Report of the College. After this, S. Venkataramana Aiyar, the smallest and youngest student in the College Department, who likewise carried away more prizes than any other, recited Tennyson's ballad of "The Revenge," and his performance well deserved the applause which it received.

The prizes were next distributed to the successful students of Pachaiyappa's College and of the various schools.

His Excellency, having finished the distribution of the prizes, was greeted with prolonged applause as he rose to address the meeting. The following is an authentic report of his speech:—

Ladies and Gentlemen, it is close upon twelve months ago that many of us who are now present here were present at the great celebration of the Jubilee; and that celebration was very worthily and appropriately presided over by His Excellency the Viceroy. Now as it is not possible to celebrate the Jubilee every year, so it is not possible to get a Viceroy to preside over every annual meeting of this institution (Cheers and laughter). But although this is not a Jubilee year or a meeting called to celebrate that great event, yet I think the presence of so many friends of this institution in this hall, testifies to the great interest taken in this institution in what I may call an ordinary year of its existence (Cheers); and although you cannot have a Viceroy to preside over your meeting to-day, still I wish to thank you for giving me an opportunity, which I had great pleasure in availing myself of, of being present here as a more humble individual to preside over this meeting to-day (Cheers). I do not think it is necessary for me to follow at any

length the reports which we have heard read to us. They testify to a year's work of real good and sterling worth. Of course in a large institution like this, there must be ups and downs in different portions of the Charities and the schools under the direction of the Trustees; but, on the whole, I think they are much to be congratulated on the report which they have presented to us to-day. Naturally there are fluctuations in the income, in attendance, and in the fees; but on the whole, I think, we may safely say, that this institution has been carried on with as much vigour and with as much intelligence as it had been in the past. The Trustees call the attention of Government in a very straightforward manner to the request which they make in their report, that Government should come more to their assistance and give them a grant-in-aid towards the High School. In regard to that matter, I can only say that the Government has to regret that it is not able to afford the assistance which this institution would wish to see it grant. We are limited in this matter by the length of our purse, and our purse, I am sorry to say, is not long enough to reach the Madras High School of Pachaiyappa's Charities. It devotes very nearly Rs. 700 a month towards the College, and in the matter of the High School we are not able to give you as much assistance as we could wish. Though I say this, I hope you will understand that Government is as anxious as it possibly can be, to devote large funds towards the promotion of education throughout the Presidency. Those of us who are intrusted with the management of affairs in this country cannot but be aware of the enormous importance of promoting education both primary and upper, throughout the whole of this Presidency. It is a work of time; it is a work, we may say, that is almost just begun. But it is a work that must be pressed, and the Government will never relax its effort to further it as long as it remains what I may call a responsible Government in this country. The Government looks with the greatest pleasure on such an institution as this, where the efforts of gentlemen who have themselves lived their lives among you are devoted towards promoting the cause of education among their fellow-countrymen. Much has been done in the institution. This is one of the most important institutions in this Presidency; and I assure you the Government watches its operations with the greatest interest and the greatest solicitude; and receives the report on the working of the institution, as it comes round every year, with the very greatest interest possible. The report this year, as I have said, shows, on the whole, a decided and steady progress. It points out where there are opportunities for improvement, and it also emphasizes where that improvement and that progress have been most marked; and in one particular the Trustees have laid great

stress on what they consider more or less a shortcoming among the students of this institution—that is that they do not turn their attention away from the subjects which occupy their minds and which are carried out in the class-rooms, to those important exercises by which their bodies are kept and maintained in a state of proper health and their constitutions are strengthened and invigorated. It shows that the students of this institution have been somewhat remiss in Gymnastics and Sports and I am glad they have drawn the attention of the students and the public to this drawback. I trust what has fallen from them will be the means of encouraging and stimulating still further this important branch of education of the youth. Mr. Adam, whose absence I am sure no one regrets more than I do on this occasion, is not a man who does things by halves. He has taken steps to see that the students who are brought within the walls of this institution will not suffer any longer from remissness in this branch. I am glad therefore to see a marked improvement in the Athletics and Gymnastics which Mr. Quinn and those interested in the matter are doing so much to encourage. I can quite understand the anxiety on the part of the Trustees to encourage this branch of education among the youths here, because I find that those that are cleverest in the class-rooms, and have received prizes, must be endowed with almost superhuman strength to carry away the large tomes and volumes that I have had the pleasure of distributing to-day (Laughter). The report mentions another point which is one of considerable importance, and which I am glad to see is emphasized by the Trustees, that is the Report on the Commercial High School, which, under Mr. Duchesne, is doing such good work. I believe this particular branch of education will do very much towards encouraging the youths of this country to take up for their profession a commercial life; and nothing can possibly do more to ground them in the commercial work which they will have to do than the education which they receive here. I am glad to find there is an opening in this way for many of the youths of this country. I sincerely hope that they will avail themselves of the opportunity which is thus given to them. I have several times alluded to the fact that it is with some regret I found that the chief inducement of the youths in this country to take up education is to receive eventually some post under Government; and I have done my best to point out to every one concerned the great necessity of not attaching too much importance to such prospects. * As you well know, there is a certain number of appointments which the Government has to bestow, and when those appointments are filled up a very large number of youths will have to decide in a rather haphazard fashion upon what profession they can follow. It is therefore I find with great pleasure

a certain number of young men turning their attention more particularly to what we may call another opening in life, which I believe will very largely and considerably increase in this country. I hope the instruction they receive will do much to increase the commercial prosperity of the town; and that those who devote the earlier portion of their lives to this kind of study will never have any cause to regret it. The report ends with an allusion of a very sorrowful nature, and I can assure you I sympathize most deeply in the feelings of the Trustees at the death of Mr. Salem Ramaswami Mudaliyar. I am sure his loss must be felt not only in this institution, but throughout Madras. I cordially sympathize with the Trustees in the expression of sorrow with which they have recorded his death.

In conclusion, I do not know if it is necessary for me to dwell at greater length on the various points referred to in the report. I beg to express once more the pleasure I have had in being present here to distribute the prizes of this institution and to see and to hear for myself the excellent progress it is making. I hope that progress will continue for many years to come, and that you and many generations of future students will have cause to remember the good name of Pachaiyappa and do your best to be worthy and deserving students of the institutions which have been founded in his name (Loud and continued applause).

A vote of thanks to His Excellency by Mr. Venkataramanujulu Nayudu brought the meeting to a close.

THE MADRAS ASSOCIATION OF WOMEN TEACHERS, b. 1892-1893.

The fourth Anniversary of this Association was held last month in the Government Presidency Training School for Mistresses, Madras, Her Excellency Lady Wenlock presiding. The Hon. Mr. A., and Mrs. Munro; The Venerable the Archdeacon, and Mrs. Elwes; Dr. and Mrs. Bradshaw; the Rev. J. Black; Mrs. Brander; Rao Bahadur V. Krishnama Chariyar; Mr. and Mrs. Morren; Dr. and Mrs. Henderson; the Rev. J. T. Lawrence; and Mr. A. J. Cooper-Oakley, were among the large gathering present on the occasion.

Lady Wenlock, accompanied by Captain Lord Douglas Compton, was received by Miss Keely, President of the Association, and the Hon. Mr. A. Munro, Ag. Director of Public Instruction, and conducted to a seat on the dais to the strains of the National Anthem.

Miss Keely, in opening the proceedings, speaking in the name of the Association, heartily welcomed Her Excellency Lady Wenlock to the meeting and said:—"We feel honoured by your consenting to be our Patroness, and still more when by your presence here to-day you shew that your patronage is not merely a name but a living interest in the work that the Association has undertaken. It may not be amiss for me to state now what that work is, and how the Association came to be formed. Mrs. Brander having established the Training School for Mistresses, and sent out young women and girls qualified to teach their young sisters, began to consider how she could induce those teachers to keep up what they had been taught, not to stand still, but to go on improving themselves, so as the better to teach others. She knew, as we all know, who have to do with young people, how apt they are to rest satisfied with having passed the examinations, and with being the proud possessors of certificates. There was danger too of their running in a groove. Too busy in their schools to read the books of the day, books perhaps too out of their reach, they would have no opportunity of gaining new ideas, and so they might go on in a dull routine that in time would probably kill all enthusiasm in their work, or turn the workers into mere machines. Thinking thus, and wishing still more to benefit those for whom she had already done so much, Mrs. Brander conferred with some of her friends who thought with her, and it was decided to form an Association by which the teachers might mutually help each other, meeting together to exchange thoughts, to hear papers read on subjects connected with their work, subjects in which the strong might help the weak, to listen to model lessons given by experienced teachers, and to lectures from professors. Added to these too, was the advantage of the personal knowledge of each other, the friendly feelings excited by frequent meetings, and the emulation naturally awakened, by intercourse with those more experienced than themselves. All this is aimed at by the Association, whose objects are, as stated in the Third Annual Report (1) to stimulate interest in, and to promote a knowledge of the art of teaching; and (2) to encourage sociability and co-operation among the members of the profession. That such an interest has been awakened the number of members present to-day is a satisfactory proof, and that sociability has been encouraged has been shewn by the fact that the social parties have been always well attended. That books may not be wanting to help the teachers, a Library was started which by the kindness of friends is daily increasing. Miss Bernard will read the account of it. Your Excellency will now, I hope, understand the way in which the Association was formed, and from the Report which is about to be read will see something of its work.

Miss Burns, the Hon. Secretary, then read the Annual Report from which we make the following extracts:—

The number on the roll at the beginning of the year was eighty five, since then seventeen members have been added, but there has been a loss of thirty-one; these however, are not all withdrawals; the names of the eighteen members were taken off for non-payment of subscriptions, and one member died at Christmas. The number left on the roll at the end of the year is seventy.

There have been many changes during the year among the office-bearers, and in the Committee. In March, Miss Oxley resigned the office of President, and Miss Jupe that of Secretary, the former to go to England, the latter to enter the Presentation Convent. The Association, while recording these resignations with regret, desires most heartily to thank those ladies for the good work done by them during their term of office. Miss Govindurajulu gave up her place on the Committee in the same month, as she was leaving Madras. Mrs. Duncan was elected President in April, but her term of office was very short, as she resigned in August, on the eve of her departure to England; she showed her interest in the work of the Association by a gift of books to the Library. At the same meeting Miss Burns was appointed Secretary and Treasurer, and Miss Franklin, Assistant Secretary. When Mrs. Duncan resigned, Miss Keely, who had in the first and second year of the Association done the work of President, was again elected to that office. There were ten monthly meetings of the Association, and four meetings of the Committee, held during the year. In February, Mrs. Brander kindly invited the Members of the Association to a Garden Party at her house, Norton Lodge, The Luz. Her invitation was promptly responded to, and a large party met there. The amusements provided for them by their kind hostess were chiefly Out-door Games, and afterwards a Magic Lantern. These Garden Parties which Mrs. Brander gives every year tend to promote sociability among the Members.

The Funds of the Association are not in as favourable a condition as they were last year. The balance in hand is now Rs. 138-13-0, while that of last year was Rs. 207-7-9. This decrease may be accounted for by the fact that as the Association grows its wants naturally become greater. The increasing number of books in the Library necessitated an outlay of Rs. 30 for an additional book-case. For the Museum a sum of Rs. 50 was allotted for the purpose of providing Natural History Pictures and Apparatus, which Miss Oxley kindly offered to purchase while in England. Thus growing wants call for increased expenditure, but we are confident that our Funds will more than meet our needs, and that we shall have a good balance in hand at the end of our next year.

We cannot close our Report without recording our heartiest thanks to the ladies and gentlemen, who so kindly helped during the year that is past, to those who spared from their busy lives the time to prepare papers and lessons for the different meetings, and to all who have given us kindly encouragement either by sympathy or in any other way.

Miss Bernard then read the Library Report which shewed that there were 259 books on the Library at the end of the year. Of these, 153 were reference books, and the rest works of fiction presented to the Library by Messrs. Macmillan & Co. in 1891. The Report gives lists of works

presented to the Library and Museum by the Director of Public Instruction and by Mrs. Duncan.

The adoption of the Report was moved by Miss Ive, seconded by the Hon. Mr. A. Monroe, the Venerable the Archdeacon, Mr. Cooper-Oakley, and carried unanimously.

Her Excellency Lady Wenlock then addressed the audience and said it had given her very great pleasure to preside at their meeting that evening, and that she was glad to hear that the Association was of great use; she however regretted that there was a diminution in the members on the rolls, which was due to non-payment of subscriptions and not to any unpopularity of the Association. The diminution in the funds was, she added, owing to increased expenditure, but she was glad to hear that the funds in hand were sufficient to meet all expenses. In conclusion she wished the Association every success and expressed a hope it would flourish and prosper in the future (Applause).

The guests were then treated to refreshments and the meeting brought to a close.

*THE NEW TEACHERS' TESTS, BURMA.

One of the rules of our Association is that the subjects taken up by Lecturers are to have some direct practical bearing on the work of teaching, and it seemed to me that I could not take up a subject that had a more direct bearing on your work than the one I have taken up to-night—the New Teachers' Tests. And in speaking to you to-night on this subject, I do not wish you for one moment to feel that I am speaking to you, so to speak, *ex cathedra*. I am not speaking as Director of Public Instruction; I am speaking to you as one who has devoted for many years his best attention to his profession—that of a teacher—and I am speaking to you to-night as one who has tried to the best of his ability to make his profession a very careful study, and I may add as one who has devoted much study to the very books that are laid down as the books that ought to be studied here in Burma by those who wish to qualify themselves for their duties as teachers. I have read and studied every one of them even to the extent of going over them three or four times for the purposes of translation into Burmese: and what I am speaking about to-night is familiar ground; and in directing your attention to these books I am not asking you merely to do what I say you ought to do, but to do what I myself have striven to do in connection with them.

*Address recently delivered by Mr. J. Van Bomerem Pope, M. A., Director of Public Instruction, Burma, before "The Bangoon Teacher's Association."

tion with them. It may be well, perhaps, to give you some history of these Rules. In 1890, when the various rules that had been published in connection with educational matters in this Province were being revised, it was thought that the rules for teachers' tests required revision as well as the others. It was found that the existing rules did not altogether meet the requirements of Education in the Province. A Sub-Committee of men who had been engaged for some time in education met and helped me to draft this scheme. It underwent a good deal of revision and criticism and was officially promulgated at the end of 1890 and came into force from the 1st April 1891. I mention this because I think it is well for all to understand that these rules are nothing new: they are known as the new teachers' tests; but they are "new" only in reference to the old teachers' tests. They are not really new. It will be at the time of the next examination three full years and a half since these rules were promulgated. There has been ample notice of them and there has been ample time to get two bulky volumes translated into Burmese. In connection with these rules, there is one point particularly that I wish you to remember, and that is that we put the practical work of teaching *after* the theoretical. We first learn the theory from the books on the subject; we thoroughly acquaint ourselves with the principles of our work first; and then we send those of us who have acquired those principles out to do their work for three years and get their practical experience; and if we find, at the end of that time, that they show promise, they are granted a certificate. The rules that have been introduced have been a good deal criticized. Some people considered them as one of those fads which are always being brought in. Well, ladies and gentlemen, most of the improvements in the world are *fads*! It is generally some one individual who has had a little experience in the matter and who thinks there is something to be altered, who introduces the change, and then he is promptly told he is bringing in a fad: and the objection to these fads in many cases, I think, is made not by those who have looked into the subject and are exceedingly anxious heart and soul about the matter but by those who are too lazy or indifferent and think they know a great deal more than they really do know and do not approach these things in the humble, earnest spirit in which the teacher should approach them. These rules were introduced into Burma not for the specific purpose of harrassing teachers but because Burma was behind other places in this matter. In England, in America, and in the most advanced countries in Europe these questions at that time were, and had been before that time, inquired into; and the previous indifference with regard to them was being done away

with; and never before had there been a time when so such thought was given to this great and important subject. As far as the change has been carried out in Burma, I may say it is only a short time since it has been introduced, and yet within that short time I have had the testimony of school managers that ever since the rules were introduced and their teachers have begun to study these books, there has been a marked change for the better in their method of work. I do not say there has been a marked change in the conscientiousness or earnestness of their work—that existed before—but a marked change in the method of work and the results produced thereby: and I am perfectly certain that the more these things are attended to—the more the teacher's tests are looked into and studied—the greater will be the benefit to education in the Province. I feel so strongly in this matter that every Deputy Inspector of Schools has been made to study these rules, and I can tell you from practical experience what a difference it has made to them. Now, you may probably ask—What does all this mean? What is the good of having these rules? In the first place it means that we are beginning to realize the very serious responsibility that rests upon teachers everywhere. It is recognizing that teaching is really a profession and a calling, not a chance occupation to be taken up by anyone and everyone and carried on by him or her as a series of experiments, and specially blundering experiments, of which the pupils, young and old, are unfortunately the wretched victims. Then it is emphasizing the fact that the possession of a good education in itself does not constitute a good teacher; that a special study of the art and the history of education and of teaching are essential: in other words, that the Teacher, like the Doctor, the Lawyer, the Engineer, has to be taught his profession before he can be allowed to undertake it. From the fifteenth century with its great revival of learning down to the present time men of learning like Montaigne, Ascham, Locke, Pestalozzi, Froebel and Herbert Spencer—and great religious and secular bodies like the Jesuits and the Port Royalists—have looked upon education and the training of teachers as a very serious and important matter; and are we now to reject all this and consider it worthless with a supercilious smile or a captious condemnation of all their superior knowledge and experience? I think in doing this we accept a responsibility that we should not allow to lie upon us. I maintain very strongly that all this training should precede and not follow the entrance of a man or woman into the career of teaching. I am a strong advocate of Normal Training even with all its faults. But practically we have to deal here in Burma with the fact that there is a large number of teachers who have entered into their profession with no previous training at all, who have never studied their profession and who I fear

in some cases never intended to study it. It is for these teachers to take up the matter seriously and I think it is not too late to do so even now. It is often said,—and often I grieve to say by those who ought to know better and who ought to be exhorting their teachers rather than putting into their mouths captious criticisms and objections—that “teachers are just as good without all this.” Well, ladies and gentlemen, I am glad to hear it; but at the same time, I doubt it. Even a born teacher is the better for training. Being a born teacher means that, like being a born Doctor or a born Lawyer, or a Mathematician, or a born Classic, you have a certain natural aptitude for the work. But I ask you to consider what would be the result of letting loose a born Doctor or a born Lawyer without long and patient previous training, on the world. One objection I heard raised was:—At this rate, the market value of teachers will be raised. So much the better: I am sure it needs raising, if a better article can be had in return. Teachers like all others have a right to claim due recognition in this respect. Now, let us consider some of the requirements of a teacher. First of all, I have to repeat what is almost a truism; and that is that he has to study his pupils. He has to get them to work hard; to arouse interest and activity; and to make his teaching interesting. And here, perhaps, you will allow me to make a digression. Look at the walls around you and you will find them studded with maps and other materials which will be of great assistance to you in your teaching. It is only the other day, at a meeting of the Syndicate—and Dr. Marks as a member of the Syndicate may remember it—the question was brought up as to the very dry way in which Geography was taught in the earlier standards. Well, now, it is not in the power of a body like the Syndicate, or even the Director of Public Instruction, to make teaching interesting. We can merely lay down certain things that have to be learned; the power of making the lessons interesting lies with the teachers. We were told then that the curriculum was dry and might be made more interesting. Well, ladies and gentlemen, I fancy most curricula are dry. However, we made certain alterations, as to the way in which Geography should be taught. But, ladies and gentlemen, over in that corner there, hidden by the faces of the audience, hangs a little diagram which will replace any manual of geography that has ever been written for the first and second standards. Invest in a copy of that little diagram and you will teach every definition in geography in a way which no child shall ever forget and in a way which will enable him to make his own definitions at will instead of burdening his little brain with definitions committed to memory. I invite you to come here often and see in what way you can equip your classes with diagrams, maps and other appliances which shall make your teaching

interesting to your pupils. That is one of the great things you have to remember as teachers. Now, to resume my remarks about the requirements of teachers; you have to know how to teach the various branches of a teacher's work: there is reading, arithmetic, geography, grammar, composition, history, how to correct exercises, how to do examinations and how to awaken and implant a taste for reading. Then, also, a teacher should learn how to train the senses, the imagination, the thoughts, the sensibilities, the control of the will and of self and the power of future self-education. These are some of the things that a teacher has to do; and do you mean to tell me that these are not matters in themselves serious enough to require the earnest study of any teacher? Then, ladies and gentlemen, we come to moral and religious teaching. All those who are acquainted with the standard treatises on the theory of education and also with the management of schools will have seen that moral and religious training occupies a larger and more prominent space in theory than in practice. But it is our duty to put the theory into practice in the schools that are entrusted to us. You must consider that every day and every hour of the work you do, and you have to watch and discover how far you are gaining or losing power over pupils. And surely there is a serious enough question for us. But there is a great danger in these matters that we sometimes set up a very high ideal but our practice falls very far short of it—and, perhaps, necessarily so;—for what high ideal of work has ever been reached without study and training? Then you may ask—What do you mean by this training? What is this training upon which you so strongly insist? Well, I shall tell you. “As a process of education”—and I am quoting from a very admirable work on the subject—“it signifies such control exercised by the teacher over the pupil as will lead him to use his faculties and secure their completest development. Training more nearly than any other work meets the ideal of education. There can be no successful work of instruction without it. It best prepares one for the active duties of life; and it gives dignity to the profession of teaching.” But you will say “all this is setting a very high ideal and model before us which we can never expect to come up to.” Well, we all feel this. It is not only in teaching; but in all the affairs of life we all fall short of our ideals and our models. But is that any reason why we should not be striving in some measure at least—though it may be a very small measure—to reach those models? The ideal we may never reach but surely it is our duty to strive to attain it. The science of education is growing, and none of us can afford to neglect it. It is based upon Human Nature: can we need a higher or more responsible groundwork than this? Does this alone not show us the need for conscientious care

and study? In what nobler calling could you engage than in teaching? It is a work of great difficulty: it is a calling distinctly requiring careful preparation: it calls for talents of a high order, for varied attainments, for zeal, persistence, industry, fidelity and the highest qualities of the soul. The teacher deals with life. He is not like other workmen who deal with dead materials: he is distinctly dealing with life. He calls into existence the manifold powers of the soul: his work passes beyond the individual and reaches the family—it pervades society—and the teacher is the common benefactor of classes. And if you would be true teachers, I would say to you "Don't servilely copy others. Don't think that because you have studied certain books there is everything in those books which has to be solved. On the contrary, be true to yourselves. Study the needs, the dispositions, and the surroundings of those whom you are to train; make yourselves masters of the subjects you are teaching, and then with a reverent and humble regard for truth and excellence, do what seems best to you and do your best in it." You will have your trials and your difficulties; but these are also your opportunities. Your work is to train the intelligence of your pupils; to train them as good citizens; and as the final end of all teaching is not knowledge or wisdom or conduct but character, so you should endeavour to mould the character of all those entrusted to your care. This consideration of the noble ends of your labour will serve to stimulate you to do your best work. It will quicken you in the hour of sluggishness, sustain you in discouragement, comfort you in toil and reward you when your work is done. Now, I shall close—for I have no intention of keeping you here very long—with what I think will be a few words of kindly advice. Supply for mere captious criticism, honest, quiet, humble work. Leave silly talk and foolish objections, that arise from lazy indifference of self-conceit alone, and supply their place with your daily duty. Make a better use of your time; and remember that an aimless life is an exceedingly empty one. Map a regular system of life—I don't mean to say between the hours of 10 and 4; your Manager does that for you—but I mean out of school hours. Map out for yourselves a regular system of life in which Study shall play—as well as Exercise—a systematic and prominent part. Far be it from me to say, 'spend all your time in study.' But I know from experience what a large amount of time can be given to study even by those who are constantly saying they are very busy and have no time for anything. It is a well known fact that the busiest men and women in this world are always those who can find the most time for their work; and I think it only wants a little earnestness to be able to find the requisite time. Look upon your work as something serious, and responsible, and then you will find that tests are really no tests but

a pleasure and you will not be content with the minimum that is required, but will go further. The other day I came across a little piece of poetry. At a reception given by the publishers of Boston lately to Dr. Oliver Wendell Holmes and other authors and to the members of the National Educational Association, Dr. Holmes, at the end of a remarkably witty and able speech, delighted all present by a poem of welcome to the Educational Association. I think I cannot do better than conclude by quoting that admirable piece of poetry:—

Teacher of Teachers, yours the task,
Noblest that noble minds can ask,
High up Ionia's murmurous mount,
To watch, to guard, the sacred fount
That feeds the stream below;
To guide the hurrying flood that fills
A thousand silvery rippling rills.
In ever-widening flow.

Rich is the harvest from the fields
That bounteous Nature kindly yields.
But fairer growths enrich the soil,
Plowed deep by thoughts and wearied toil
In Learning's broad domain.
And where the leaves, the flowers, the fruits
Without your watering at the roots,
To fill each branching plain?

Welcome, the pupil's firmest friends,
Your voice the surest God's deeds lends,
Of you the growing mind demands
The patient care, the guiding hands,
Through all the mists of morn.
You knowing well the future's need,
Your prescient wisdom sows the seed
To fire the years unborn.

Moral character, scholarship, refinement, executive ability, and progressiveness, are some of the elements that should characterize the teachers employed in our schools. It is therefore of the greatest importance that, in the selection of teachers, every other consideration, whether of kinship, friendship, geography, or needy circumstances, should yield to that of qualification.

THE PRESENT SYSTEM OF UNIVERSITY DEGREES.

By FLAVEL SHURTLEFF THOMAS, M.D., Hanson, Mass.

(From "Education," Boston.)

I.

If you were to ask the average college graduate the number of university degrees, he would probably say—"Five or six." If he were a graduate of one of our large modern universities—Harvard, Cornell or Syracuse—he might answer—"Ten or fifteen." The graduate of an old, classical college is acquainted with: B.A., M.A., Ph.D., D.D., LL.D. He became acquainted with these in college. He knows that physicians use M.D., and he may have heard of one or more additional degrees, as L.H.D., or D.D.S. But if I should tell the average college graduate that there are *two hundred* university degrees, he would laugh at me.

Some years ago I thought there were not more than eight or ten degrees. But I soon found many new ones, and became deeply interested in hunting for new degrees and making a complete list. I hunted degrees as eagerly as I ever hunted for entomological specimens, and a new degree gave me as much joy as a new insect. In time I had a list of over sixty with a knowledge of what each meant and indicated.

From conversation with college men, I knew they were ignorant of these degrees and their great number, and therefore I felt that they, and the public generally, should be made acquainted with them. But I hesitated, as I thought then that this great number lessened the current value of degrees, and I knew that the old-fashioned Latin-Greek-Mathematics college claimed a monopoly, and was very indignant if anyone suggested that any degree except B.A., could represent a liberal college education. I feared that the publication of my list would bring down the wrath of the college world upon me. Nevertheless, I plucked up courage and my list appeared in *The School Bulletin* in June, August and September, 1887. A list of the degree abbreviations was given; each abbreviation was explained, the required entrance examination was fully explained, the studies peculiar to the course stated; and the rank and value of each fully set forth.

This was soon after (in 1887) published in pamphlet form—with remarks and generalizations, as: "University Degrees, What they Mean, What they Indicate, and How to Use Them." The results were not so dire as I had feared. In fact I was commended rather than condemned.

With this publication I did not consider my work completed, but continued my research as I found leisure, or accidentally found a new degree.

Norval Wardrop, D.S., LL.D., has been a very kind and earnest helper, starting me on the track of new degrees, and giving me points relative to old ones. I am entirely indebted to him for my present views of LL.D. I had been inclined to look upon this degree as an absurdity and had tried to show that it should no longer be conferred, when in one of Dr. Wardrop's many letters to me he plainly showed what this degree *now* means and indicates, so that I was ready, immediately, to confess that LL.D. is our best, or highest degree. It was no longer an absurdity after he had thrown this light upon it. Dr. Wardrop has done more for the modern LL.D. than all other educators and writers. LL.D. was rapidly falling into disrepute. While some considered it valuable because conferred by some great educational institution, many considered it a meaningless compliment which disgraced the institution and did not add to the prestige of the recipient.

In 1891 Funk Wagnalls, of New York City, asked me to accept the position of Editor of the Department of University Degrees and Education in the Standard Dictionary of the English Language which they are publishing. This meant a hunt for degrees and a study of degrees—not as a matter of pleasure—but as a matter of business. As a result I now have a list containing more than *two hundred and twenty* university degree abbreviations. This does not mean that there are two hundred and twenty degrees, as some degrees have more than one abbreviation. It may seem strange, but I do not know how many degrees there are. We have, for instance, D.V.M., conferred by Cornell, V.M.D. conferred by the University of Pennsylvania, M.D.V. conferred by Harvard. Now these abbreviations all stand for Doctor of Veterinary Medicine. Do we have here three abbreviations for one degree, or have we three degrees? If you say: But one degree, how is it about D.V.M.S., Doctor of Veterinary Medicine and Surgery? It indicates the same knowledge, the same rank, the completion of the same course of study. Are D.V.M. and D.V.M.S., two degrees or is it one and the same degree? Certainly it is not exactly the same title but it indicates the same *degree* of advancement in the department of veterinary knowledge. I do not feel sure just how many degrees we have, but probably about two hundred.

Now I do not mean to say that any institution confers two hundred degrees. I do not know of one that confers one-eighth of this number. Harvard confers about a dozen different degrees, Yale fifteen, and Michigan University about twenty. Then where do all these degrees come from? Nearly all confer the old degrees; viz: B.A., M.A., Ph.D., D.D., LL.D. Many have now added: B. S., M. S., Ph.B., Ph.M., B. Lit., M. Lit. Then many have struck out independently and invented

degrees of their own which may be adopted by other colleges in time. With nearly four hundred colleges in the United States it is not an easy matter to see where all these degrees came from. Yet they did not all come from the United States; I have collected them from the whole civilized world.

EVOLUTION OF DEGREES.—In the early history of universities degrees were not conferred. When a student completed his course, he received a certificate which empowered him to teach, and he was called either master or doctor. These terms were synonymous, and were not titles fixed by law, but were used in the same way that we use the term teacher. The term doctor, originally the synonym of master, was in progress of time confined to the faculties of law, theology and medicine.

The term bachelor is supposed to be derived from *bas chevalier*, the lowest order of knighthood, and was used—after the middle of the thirteenth century—to denote the imperfect graduate.

In 1500, beside the professional degrees, we find the degrees of Bachelor and Master of Arts. The next move was to the introduction of the doctorate, Ph.D., in the course of Arts, open to Masters of Arts. As the sciences were developed people began to see that these were of equal importance with the ancient classics, and about the same time there sprang up a desire to study the modern languages and literatures. So originated B.S., Ph.B., B.Lit.

The next plan—already partly worked out—was to have three degrees in each course. So we have, B.S., M.S., D.S.; Ph.B., Ph.M., Ph.D.; B.Lit., M. Lit., D. Lit. Why not—B.A., M.A., D.A? For some reason it has been—B.A., M.A., Ph.D. One of the most recent moves has been the conferring of degrees in which the titles: Bachelor, Master and Doctor are omitted, the degree being merely the name of the calling or profession.

Thus we have—C.E., V.S., M.E., D.E., Ph.C., Ph.G., M.G., E.E., A.C., etc.

CONFUSION OF DEGREES.—There is such a lack of uniformity in the courses laid out by the different universities leading to the same degree, that it is often difficult to decide what a certain degree indicates. For instance, upon the completion of a Latin scientific course Dartmouth confers B. Lit., Rochester B.S., and Syracuse, Brown and Tufts, Ph.B.

Upon the completion of a classical course most schools confer B.A., but Columbia confers B. Lit. B.A. usually indicates that a man has completed a classical course, but B.A., Harvard and B.A., Johns Hopkins merely indicates that the holder has studied three or four years in college; the course may have been purely scientific. Upon the completion of a scientific course most colleges confer B. S., but Shurtleff, Yale and Ver-

mont confer Ph.B. B. Lit., Cornell, indicates an English literature course; B. Lit., Columbia, classical; and B. Lit., Dartmouth, a Latin scientific course. The fact that in many cases the same abbreviation is used to represent several degrees is very confusing. For instance,—B.E. stands for Bachelor of Elements, Bachelor of Elocution, and Bachelor of Engineering; B.S. stands for Bachelor of Science and Bachelor of Surgery; B.C. stands for Bachelor of Commerce, Bachelor of Chemistry, and Bachelor of Surgery (*Chirurgiae*). And this leads me to speak of the duplication of the abbreviations of university degrees and other titles.

A study of degrees and titles shows that abbreviations which are just alike frequently mean and indicate very different things. For instance: B.L., Bachelor of Law, and Bachelor of Literature; M.L., Master of Law, and Master of Literature; M. S., Master of Science, and Master of Surgery; M.C., Master of Surgery (*Chirurgiae*), Master of Classics, and Member of Congress; M.P., Master of Painting, and Member of Parliament. This is not all, by any means, but enough to serve as examples. It is very easy to see that it must be very confusing and detract from the value of the degree or title.

SURPLUSAGE OF DEGREES.—In looking over a list of degrees the most casual observer will notice that in many cases different degrees—or at any rate different abbreviations indicate the completion of the same kind of a course. Thus: V.S., D.V.S., V.M.D., M.D.V., M.V.D., D.V.M., D.V.M.S., M.V., all indicate the completion of a course in veterinary medicine; D.D. indicates the same that S.T.D. does; Ph.G. equals Ph.C.; D.D.S. and D.M.D. both indicate that the holder is a dental graduate; graduates in law receive the Bachelor degree B. L., B.C.L., or LL. B., and the Master degree M.L., M.C.L., or LL. M.; and so on.

NEW DEGREES.—During the last one or two decades we have had a luxuriant crop of new degrees. It would be but natural to suppose that these new degrees are the invention of new colleges of the West, but an examination shows that this is not so. That is, they have done no more than their share. We find that some of the old conservative colleges are not conservative in this. An examination of a few of these will show the direction this evolution in degrees is taking and the institutions which are trying to improve our system of degrees. In chemistry we find the following: A.C., Analytical Chemist, Lehigh; P.C., Practical Chemist, Pennsylvania; B.C.S., Bachelor of Chemical Science, Georgia; Ph.C., Pharmaceutical Chemist, Michigan. In pedagogy we have: B.E.D., M.E.D., Bachelor and Master of Elementary Didactics, Drake; B.S.D. and M.S.D., Bachelor and Master of Scientific Didactics,

Drake; Pe.P., Principal in Pedagogics, Missouri; Pe.B., Bachelor of Pedagogics, Missouri; M.E., Master of Elements, Pennsylvania Normal Schools; B.E., Bachelor of Elements, Pennsylvania Normal Schools; L.I., Licentiate of Instruction, Peabody Normal College; Pd.M. and Pd.D., Master and Doctor of Pedagogy, University of the City of New York:

We find: B.L.S., M.L.S., and D.L.S., Bachelor, Master and Doctor of Library Science, conferred by the University of the State of New York. In fine arts we have: B.F.A., Bachelor of Fine Arts, Yale; B.P. and M.P., Bachelor and Master of Painting, Syracuse. In Europe we find: Dr. Nat. Hist., D.Z., or Dr. Zool., Dr. Bot., Dr. Zool. and Bot., Dr. Nat. Sc., Dr. Chem., Dr. Phys. Sc. I think this study of some of the new degrees shows a desire for a special degree in each department of knowledge, and a desire for definite degrees and titles which will indicate to any person in what department the holder is proficient. The degrees B.A., M.A., Ph.D. are readily accepted as indicating some kind of a liberal education, but they do not indicate *what* the holder has studied. It may have been natural science, and it may have been entirely philology. It is like conferring a blank medal. When Tufts confers Bachelor and Master of Mechanic Arts, and when Yale confers Bachelor of Fine Arts we are getting a definite and the proper use of the degrees in Arts.

NON-RESIDENT DEGREES.—Many of our colleges now confer some of their degrees "on examination" upon non-resident students; that is students who do not attend the daily exercises of the college. Shurtleff confers Ph.D. "on examination," Syracuse confers M.A., M.S., Ph.M., M.Ar., M.P. and Ph.D. upon non-resident students who pass the required examinations. Columbia confers B.A. upon non-resident students who cannot attend the college classes and who pass the examinations. Princeton allows a student to pursue a non-resident course of study for Ph.D., Litt.D., D.S., or B.D.† and when all the examinations are passed the degree is conferred. The National confers quite a number of its degrees upon students who complete non-resident work and pass the required examinations. The National University was the first institution in the United States to offer LL.D. for work and examinations. The University of Chicago has approved this course by adopting it. McGill confers LL.D. upon the M.A. of twelve years' standing, who completes required work and passes required examinations.

"IN CURSU" DEGREES.—When a student attends the daily exercises at the college, upon the completion of the course he receives B.A. or B.S. "in cursu" or "in course." This is considered the most valuable

Bachelor degree; in fact most colleges rarely confer a Bachelor degree in any other way. That is, the usual, regular form is: B.S. "in cursu." But now comes that which is confusing and far from consistent. Most colleges give a Bachelor of three years' standing a Master degree upon the payment of five dollars. This is M.A. or M.S. "in cursu." These degrees have little or no value. No value is given them as counting toward Ph.D. But if M.A. or M.S. is taken "on examination," it is valuable and is accepted as half of Ph.D. work. Thus—B.S. "in cursu" is most valuable, while M.S. "in cursu" has little or no value. B.S. "on examination" is not so valuable as B.S. "in cursu," but M.S. "on examination" is more valuable than M.S. "in cursu." I think colleges make a great mistake in conferring a cheap and a valuable Master degree. If a man intends to work for Ph.D. he will desire to take the Master degree "on examination" as this takes him half way to Ph.D. But if he does not intend to try for Ph.D., he will probably take an "in cursu" Master degree, as it will cost no work and only five dollars; and when he uses it how many will know but that he took it "on examination"? If you offer a man a coat for ten dollars but tell him that he can pay one hundred dollars if he desires to, he probably will take it for the ten dollars.

THE TEACHING OF ENGLISH LITERATURE IN SCHOOLS.*

By J. WELLS, M. A., *Fellow and Tutor of Wadham College, Oxford.*
(From *The Educational Review*.)

It is now some years since Mr. Sidgwick gave us a charming paper on "The Teaching of English Literature"; that paper has never, to my knowledge, been published. Hence I hope that I shall not be thought in any way to wish to challenge comparison with him.

"Infelix puer atque impar congressus Achilli."

And I should like at once to acknowledge my obligations to his paper, and to Mr. Glazebrook's excellent one on the same subject, in "Thirteen Essays on Education"†: as I may have borrowed points from them without proper recognition of their source, I must ask at once for a general absolution.

* This paper was read to the Oxford Branch of the Teachers' Guild in February, 1892. It was originally given at the Oxford Summer Meeting in August, 1892, along with a lecture on "The Teaching of History in Schools" (since published by Methuen & Co.) as part of a special course for teachers.

† Percival & Co.

But before we come to the real point of my paper a preliminary problem arises—ought we to teach English literature at all? Mr. Hales, in his preface to his "Longer English Poems" *—a very useful book for a teacher—actually claims for the reign of Queen Victoria a fame, like that of the reign of Richard II. In the latter, in 1385, John Cornwall made an epoch in English schooling by introducing the English language; previously all lessons had been given in French. In the former, says Mr. Hales, we have restored English literature to its place. But I fear the world in general will not quite readily admit that our nineteenth century change is as necessary or as important as that of the fourteenth. In fact, many critics tell us without hesitation that to teach English literature is to ruin the study of it. Mr. Mahaffy, in the January number of the *Nineteenth Century*, curses modern education in all its forms by all his gods, and suggests that our new study—English literature—is a very serious mistake. The University of Oxford—at least so far as the Hebdomadal Council misrepresents it—seems to be of the same opinion; they protect English literature by refusing to let us study it. And I know at least one practical teacher, who has taught the subject himself with what seems to me to be success, who has definitely recorded his opinion that "English literature lessons will not train intelligence" † as those on language will, and that it is a mistake to suppose that to boys and girls one subject is "more interesting than another," however much it may appear so to the mind of their elders.

This last is a matter of experience, and I do not think the majority of teachers will agree with the friend whom I have been quoting; certainly it is not my own experience that English literature as a subject fails to attract. Still less do I believe that teaching a subject will debar our pupils from enjoying it later. Of course really bad teaching can ruin anything: but Macaulay, for once at any rate, seems to me to describe far more accurately the ordinary results of school life when he says, speaking of Milton's lines, that "they evoke all the dear classical recollections of childhood." ‡ Professor Mahaffy tells us that boys "trained of recent years in English read less of the great poets, and think less about them, than those who have only read them for pleasure." We must not attribute to the teaching of English literature what was already a feature in our national character—viz., the fact that we are not a reading people as a whole.

* Page 14. Macmillan & Co.

† *Guardian*, September, 1891.

‡ Essay on Milton, p. 6 (Students' Edition).

We must not be too sanguine as to the results of literature teaching; we shall not turn our classes wholesale into diligent readers of the English classics.

"We needs must love the highest when we see it" is as true in literature as elsewhere; but all will not see it. The teacher must be satisfied if he smooths the path of all his pupils who wish to read them earlier and guides that happy few whose own interest would have led them to the highest without help from him.

But it is rather an academic question now whether we ought to teach English literature or not; the theorists may discuss it, but the world has settled the problem for the ordinary teacher. We have to take classes on the subject, whether we will or no; what then it is necessary to discuss is—how shall we do it most efficiently, and what are the results which we hope to obtain from our work?

To discuss ideals in this way is necessary; too often in teaching we lose sight of the end aimed at in the difficulties of the way thither. These difficulties are sometimes so great—at any rate with boys—that they may seem to render the ideals useless; as Dr. Butler once told a gathering of French teachers, it often seemed to him that masters discussed method just as mechanics discussed problems in mathematics—i.e., they ignored the element of friction—and then the English boy got up and said, "La friction, c'est moi", ("I will answer for the friction").

What then are the aims with which we teach English literature? Let us go to the Greeks for one part of our answer. Plato describes how "our youth will dwell in a land of health, amid fair sights and sounds; and beauty, the effluence of fair works, will meet the sense like a breeze, and insensibly draw the soul, even in childhood, into harmony with the beauty of reason." Such was their ideal; their climate and their art gave them the fair framework for their scheme of education, and they supplied the definite process itself by steeping their children in the poems of Homer. We are told of persons who could recite the whole of his works. And the Greeks had their reward. It would not be an exaggeration to say that, leaving out the spiritual side, they were the most perfectly educated nation which the world has yet produced.

We need what they needed—to train the children by familiarity from their earliest years with what is noble and beautiful. I think this is one of the points which is so obvious that it is often forgotten; and so I would ask whether we can fairly expect our pupils to cherish the old ideals of courage and duty if the new education we give them only con-

* Rep. 401 (Jowett's Translation).

sists in familiarising them with the material forces which natural science reveals, or with the abstractions of pure mathematics. Our old classical education was absurdly limited in its methods and narrow in its results; but I think it had more to do than we gave it credit for with the formation of the character of the English upper classes. They did not learn much of Greece and Rome, but what they did learn had to do with patriotism, with power of governing, with the consciousness of strength. We can see their faults—and there are plenty of them—but we must not forget their virtues, however limited some modern critics think them.

But we need more than the Greeks did. They lived a natural life we live in the midst of a civilization which is artificial, and which is growing more so every generation. The accumulation of our people in towns; and the early separation of the young from their homes, mean that books and reading now have to fill a large part in men's lives, which once was filled by the ordinary business and relationships of the family. We have, then, to teach to read, because in reading we hope our pupils will find a solace and a way through the periods of isolation in which, sooner or later, and probably sooner, they may find themselves. This point is admirably discussed by Mr. Cotterill in another of the "Thirteen Essays" quoted above—that on "School as a preparation for future life." The question which he presses home on his readers is, "how far has our school training fitted our pupils to spend well their vacant time?"

To sum up then, our objects are: of course, in the first place, to train, to educate, to teach children to think, not to dictate to them our thoughts to be learned by rote; this should be taken for granted in all discussions on education: (2.) To teach children to read; this includes as an important, though not of course its most important, part, to teach them to read aloud: (3.) To train their characters thereby. How do we propose to attain these results?

In the first place it may be worth while to begin by considering dangers to be avoided. Of these, perhaps, the worst is the danger lest the philologists should get hold of our teaching, and turn what should be a book full of interest into a series of pegs on which to hang scraps of knowledge, useful perhaps in themselves, but useless in the isolated way in which they are stated.

Unfortunately the text books of English literature are full of this stuff. Every unusual word (and many usual ones), is hunted back into the recesses of Anglo-Saxon or Old French; and the sad thing is that conscientious children will reproduce all these notes from memory

although to them they mean absolutely nothing. Just to take one instance; in a very popular school book, Taylor's edition of Scott's *Lady of the Lake*, I find in two following pages, five notes out of twelve and four notes out of eleven respectively, devoted to etymological questions.

Etymology is an interesting study, or would be if its principles were not upset and reconstructed in every generation; but if we want to teach it, let us do so systematically, not by unconnected scraps, or on the principle of *ignotum per ignotius*. Some of our Oxford philologists are at any rate consistent in this respect; strong in the belief that literature exists to furnish material for etymology, they confine themselves to works which have no literary interest at all, this is honest; the stuff we force upon children is neither honest nor useful.

(2.) With the philologists I would class as a second kind of enemies the textual critics, those who look upon a great author as material on which to display how badly one set of persons printed, and how foolishly another set of persons tried to correct the mistakes of the first. Poor Shakspeare has suffered most in this way; Theobald was a very great man, but I cannot see that a child needs to be told in every page of the obvious blunders which he corrected still less need he have the banalities of Pope, or the vulgarities of Warburton forced on his notice, when the best we can do for those editors, great too in their own fields, is to forget they ever showed their incapacity to understand Shakspeare. Yet, obvious as this is, the Clarendon Press edition gives us the names of Warburton and Pope and Theobald on almost every page; and this edition sells by tens of thousands!

(3.) Again, we must be careful not to let ourselves be dominated by prefaces and notes generally. The object we are aiming at is to teach children to think and to appreciate, not to qualify them to edit their authors, or to accumulate miscellaneous information; however great the subject which it illustrates. Notes are necessary in most writers, even those of our own century, and they become more so as the period of the author studied is more remote; but we must never forget they are *means not ends*. And yet this obvious principle is so completely forgotten that, as Dr. Latham says, "Examinations in literature become a reproduction of footnotes and manuals." I know of one flourishing girls' school in the Midlands where an edition of Shakspeare is used which has only preface and notes—*no text at all*. This is a *reductio ad absurdum*; and yet it only shows a true feminine consistency in the logical application of the principles on which teaching and examining are too often conducted.

(4) Again, we ought to make it a rule never to study second rate work. Here the controllers of examinations have much to answer for. I remember very well when boys studying for the Local Examinations received as their mental food for half the year Parnell's "Hermit," a poem which it would be a compliment to call "third-rate," and of which the moral is more theological than edifying. I wish I could make all educational bodies study the very sensible remarks which the Clarendon Press print at the end of their catalogues, under the heading of "A Series of English Classics." They say, "Common sense tells us that if young persons, who have but a limited time at their disposal, read Marlowe or Greene or Burton, Shakespeare, Bacon, and Milton will be comparatively neglected." Unfortunately the delegates of the Press do not act on their own principles. They have produced elaborate editions of Marlowe's "Dr. Faustus" and "Edward II." in their series, which they say is "chiefly educational," and, worst of all, they have published school editions of Thomson, in which that charming, but not very important, author is overwhelmed by a perfect cartload of notes, most of them quite unnecessary. Educational bodies do odd things when they are trying to make one or two per cent more profit; and yet it is not this only—good school books would pay as well, or better, than bad ones—but unluckily, the publishers lack something—be it time, or inclination, or ability—which would enable them to distinguish.

These are the dangers of the bad or the careless teacher. He shifts his burden on to the commentator, and receives from him his daily task—viz., to cram into the poor children notes which are either useless entirely, or useless to them, or simply irrelevant, but which, in any case, are miscellaneous, and certainly are not literature.

J. WELLS.

(To be continued.)

The recognized school system is plainly the only hope of the children of the masses for educational advantages. To give these children a school with an indifferent teacher is to give them a stone when they are asking for bread. There can be no good school without a good teacher. Our Indian school system must, therefore, remain incomplete until it provides a sufficient supply of well trained teachers for all the schools.

APPLIED ART AND TECHNICAL EDUCATION.

By M. SULLIVAN, *Brassey Institute, Hastings.*

I would prefer the phrase *Skill is power* to that which more commonly obtains, namely, 'Knowledge is power.' For 'skill' implies knowledge and practice in doing. Thus it comes about that when we speak of a skilful workman we mean one who not only knows all about his calling or craft, but one who has practised it, be he a poet, painter, musician, sculptor, mason, carpenter, blacksmith, or other workman.

Among the things that impressed themselves deeply on my notice in my earliest years, I vividly recollect the doings of one of these workmen, the blacksmith. In his leisure from other work he busied himself in making and laying by a stock of nails of all sorts. Well do I recollect the process of forging the end of the rod of steel, glowing from his fire, upon his anvil; then the dexterous cutting, all but off, of the shapely piece, its insertion into one of the proper holes in the anvil top, and the following beat or two of the hammer that fashioned the head, and the nail was made complete, with such quickness and precision that to examine one out of its water bath was a special delight, so shapely was it, so deftly done, so strong and fit for its purpose!

Knowledge that has come to me in more recent years inclines me to consider the nail-making of my friend the blacksmith as a perfect piece of technical work; and, though humble, that it was in its way and measure artistic. The man knew what to do, and he did it with delightful skill and ease. For this is just what technical art is. It is the union of science and art—that is, of knowledge and handicraft in any industry operating with celerity and sureness; and the result of their united labour is beauty and utility combined. Further, these qualities result in direct proportion to the fitness of the science and the art brought to bear on the work, and the heart, mind, or soul of the man operating.

If I here followed strictly the theme of the technics of art, I should take some group—such, perhaps, as engraving of different sorts, or metal work of various kinds, as casting and founding of bronze and iron, &c.; or sculpture, casting and modelling, &c.; or other group—and dwell on its details. Education we know, but technical education even still needs clearing up. The Greek word *τεχνή*, meaning art or trade, craft or calling, and such-like, has found its way into the formation of several English words which in the last few years have been in very frequent use.

To discourse on 'technics of art' fully, however, would be a task simply gigantic in magnitude, and we may well doubt if there is a *technologist* in the world so learned as to do it justice. For he would have to be skilled in all the *technicalities* of every profession under the sun (so I find when I consider it). Such a technologist would require to be not only a Doctor of Medicine, a Doctor of Law, and a Master of Arts, but of every craft and calling.

Study of the *technics of art* may best come after an education in some of the elements profitable to it and to a community locally. If the aims of technical education can be *even a little* more fully made known just now, when that education is much heard of, but not even yet clearly grasped, it would seem opportune to discuss it. We know for a fact that such success as has been achieved by South Kensington, or through its instrumentality, during this last generation, has put centres of technical education abroad on the alert to find means of holding the lead they have hitherto had, and other nations who were lacking technical education, perhaps wholly, have suddenly taken great strides in very practical methods of achieving it. Everything we do is open to the world's inspection, and we know pretty well that the American, the Frenchman, the German, or even the Orientalist, for the matter of that, is wide awake, and if we open our eyes in one direction, they look around them in others to keep pace with our advance. Technical education is a long tradition with Germans and Frenchmen; latterly Norway and Sweden and America have pushed on in this particular. It was only last year we and Europe were visited by a Japanese Commission from Tokio, its art capital. Experiment upon experiment has been tried by either or all of these, and, of course, with corresponding advantage. We should be unwise if we now proved incapable of perceiving how to learn from them in turn, and of improving on our existing system. Yet we should be still less wise if we lost sight of, or could not appreciate, the natural characteristics of our own strength, and if, while *foreigners* admire these in us, we should let them drop, to take up with smart artificialities, debasing ourselves into copyists indistinguishable except by inferiority from the model on which we may fashion ourselves.

When I undertook to prepare this paper, I received from a lady a parcel of a varied and valuable kind—pamphlets, newspaper cuttings, manuscript notes, &c.—which showed me the watch she kept in this matter. Amongst these were three reports from Boston City, America. There manual training classes are organized on the plan of sending batches of some twenty boys from various schools to a school fitted with benches, wood, and tools, and a master-carpenter who instructs one batch

in the morning for two hours, another for two hours in the afternoon. In the intervals he sees to the tools and examines the work, and he prepares for the next class. He so instructs two hundred boys in the course of the week. Chicago has extensive manual schools, and the system is spreading throughout America. It is some six years, I believe, since it was started. Somewhat more than a year ago I visited one of our Schools of Art on the invitation of its head master, and heard a distinguished American gentleman deliver an address on this subject. The gist of that address, if I remember rightly, was to the effect that actual production of work should accompany art practice; that a boy should no sooner be able to draw a pattern or ornament than he should carve it, &c. Incidentally, I may remark, he was particularly complimentary on the work of English Schools of Art, and spoke in high praise of their excellence.

Now, *apropos* of the training so recommended, it must be admitted that the school which shall instruct young people to be skilful craftsmen is one thing, and, there cannot be a doubt, a very good thing. For instance, in Switzerland there are large schools in which watch-making is taught to the entire juvenile population of the village or district, and the scholars continue to be watchmakers after they are grown up. And, it can be imagined, there may be localities in England in which the whole district would be benefited by the thorough scientific technical training of youths for the special trade or manufacture of their townships or districts. This, however, is quite a different thing from that now being called for. This is mainly of two sorts, as I understand it: (1) *Manual Training*, graduated to the capacity of children in schools, and, continuing from it, trade handicrafts suited to the same students, or the fittest of them, growing up and entering trades; and (2) *Technical Training*.

The cry now is to give boys a little hammer-and-file work, and girls lessons in neatness, cleanliness, preparation of food, and household management, not so much to make cooks and carpenters, &c., of them as because it is likely to be as good for them as to know that the Amazon is a big river in America, or which is the highest mountain in the world; for, a boy who is employed to carry out grocery and sweep out the shop, &c., will be a handier and more useful boy probably in such a situation if he has been accustomed to the use of a hammer, saw, and file. This sort of training is suitable for any town in the Empire.

However incapable Englishmen may be of apprehending or appreciating (as some think and say they are) the refining side of art study, it would be stranger if they should wilfully shut their eyes to their

commercial interests. Yet I cannot see why they should not be credited with proposing it with as large and liberal-minded a desire for their people's moral and material advancement and happiness as Americans are said to be actuated by. There are evidences that England has been needing a system of continuous training for years past, though felt at first by few. Sir Antonio Brady was knighted for his services in making known our needs and opportunities to us in this direction. Mr. Thomas Twining (and his brother, I believe), a vice-president of the Society of Arts, laboured for years in the same direction, formulating schemes and plans for technical and industrial instruction, and urging the foundation of a central technical college by the City Guilds of London. Now at last we have the splendid resultant monuments of of this pioneer work in the *Guilds of London Technical Institute* and the *Finsbury Technical College*. In the Midlands and in the North, at Bradford, and Manchester, and Edinburgh, &c., we have technical schools and colleges. The Heriot-Watt College in the last-mentioned city, judged by its curriculum of studies, must be a very valuable institution.

Than that Bradford and Manchester should look after the various trades of dyeing and the chemistry of colours, provide the best instruction procurable in all that has to do with the treatment and manufacture of wool and cotton—of drawing and design, of taste in colour, and skill in all the mechanical appliances and processes of printing, and weaving, and fulling, &c.—nothing is more natural. The *Manchester Technical School* gives instruction in the use of simple wood-working tools, in a graduated and systematic course of lessons to boys, who are said to flock eagerly to it; and it teaches the principles of science and art in their application to the industries of the district. Its work comprises three main divisions: (1) a manual training school for boys; (2) a school of art, science, and technology; (3) an evening school for commercial, artistic, scientific, and technological subjects. It is much the same in the others.

From what we have seen I trust we know what manual training is as well as technical training. We have an idea that there is a certain measure of manual training possible in connexion with every school, and that this might grow in importance with the age of the children, and prove a healthy relaxation and change from the constant poring over books. We have concluded that technical training, in its fullest sense, must belong to great industrial centres of manufacture, such as some mentioned. We may have formed, or have half formed, an idea that some of our education which at present makes clerks, leaves them unfit

for little else, and that at the same time, much of our handicraft work goes abroad to be done while so many of our people at home stand idle; that something here is out of joint. The old cry of demand creating the supply does not create it in some instances at home, and seems out of place.

I understand that nearly the whole of the lithographic and the chromo-lithographic work, of which we were almost the inventors, and the first successful practitioners, and of which we continue to use so much, is done out of the country, and I ask, Why should not some of our well-qualified art students be engaged in these art trades? We might think, too, that it is unpatriotic and *uncalled for* on the part of any one (as some highly placed persons do) to say we are inferior to other nations in art capacity until it can be shown we have had opportunities equal to those enjoyed for centuries in some instances by the inhabitants of old centres of special technical industries on the continent of Europe, and have had opportunities of wide-spread art study for periods approaching that of those with whom we are in competition. Paris, Dresden, and Munich occupied the field long before we thought of entering it against them. If it could be shown that we are behind in our present art attainment or capacity compared with other nations, it need not reckon too much to our disparagement since we have started so recently in the race.

Among the notes made by our special commissioners to the Continent to report to us on technical and art education there, I find some things mentioned by which we might profit. After reading the whole of these notes, however, the feeling arises that there is a fresher and more vigorous life in our own art schools owing to certain principles which, if persevered in, will increasingly give life and vigour to the development of artistic power and refinement in this country. The conservation of these will preserve us from artificiality and mere display of dexterity. When all the cities and almost every clime have entered into the open competition, and nations strive for preëminence in the arts of peace, then, though vitiated taste and bad judges may say otherwise, still the palm of victory and the crown of preëminent success must belong to the constant devotee to Nature herself. Herein, I believe, we are already among the first, and remarks in these notes confirm my opinion. Where, however, we are behind is in a system that begins, prepares, and continues. Here is the sentence used to express this: 'The point in the German art-teaching which struck us most, and from which there is much to be learnt, is the preparation in the elementary schools for the teaching in the art schools. If freehand

drawing is taught at all in our elementary schools, every effort should be made to render the teaching more efficient. It is noted that of the time put down for drawing in our national schools, little of it is really so used, while seventy-five per cent. of them give no drawing instruction whatever, and the boy from them, consequently, reaching our art schools, is mere raw material, and it needs not to be insisted on that this is a serious drawback. There is work to be done by us in this direction. It will interest you to know that we have been of that mind, more or less, this thirty odd years. In 1857 the late Sir Henry Cole, who, with the Prince Consort, may be called the founder of the South Kensington Museum, wrote: 'It will be a great step when one town can show that drawing is taught in all its public schools, their own teaching staff teaching the elements, and the art master of the district teaching an advanced class, and inspecting the whole.'—*Science and Art*.

THE HODGKINS FUND PRIZES.

In October, 1891, Thomas George Hodgkins, Esq., of Setauket, New York, made a donation to the Smithsonian Institution, the income from a part of which was to be devoted "to the increase and diffusion of more exact knowledge in regard to the nature and properties of atmospheric air in connexion with the welfare of man."

With the intent of furthering the donor's wishes, the Smithsonian Institution now announces the following prizes to be awarded on or after July 1, 1894, should satisfactory papers be offered in competition:—

1. A prize of \$10,000 for a treatise embodying some new and important discovery in regard to the nature or properties of atmospheric air. These properties may be considered in their bearing upon any or all of the sciences—*e. g.*, not only in regard to Meteorology, but in connexion with Hygiene, or with any department whatever of biological or physical knowledge.

2. A prize of \$2,000 for the most satisfactory essay upon—

(a) The known properties of atmospheric air considered in their relationships to research in every department of natural science, and importance of a study of the atmosphere considered in view of these relationships.

(b) The proper direction of future research in connexion with the imperfections of our knowledge of atmospheric air, and of the connexion of that knowledge with other sciences.

The essay, as a whole, should tend to indicate the path best calculated to lead to worthy results in connexion with the future administration of the Hodgkins foundation.

3. A prize of \$1,000 for the best popular treatise upon atmospheric air, its properties and relationships (including those to hygiene, physical and mental). This essay need not exceed 20,000 words in length; it should be written in simple language, and be suitable for publication for popular instruction.

4. A medal will be established, under the name of THE HODGKINS MEDAL OF THE SMITHSONIAN INSTITUTION which will be awarded annually or biennially, for important contributions to our knowledge of the nature and properties of atmospheric air, or for practical applications of our existing knowledge of them to the welfare of mankind. This medal will be of gold, and will be accompanied by a duplicate impression in silver or bronze.

The treatises may be written in English, French, German or Italian, and should be sent to the Secretary of the Smithsonian Institution, Washington, before July 1, 1894, except those in competition for the first prize, the sending of which may be delayed until December 31, 1894.

The papers will be examined, and prizes awarded, by a committee to be appointed as follows: One member by the Secretary of the Smithsonian Institution, one member by the President of the National Academy of Sciences, one by the President, pro tempore, of the American Association for the Advancement of Science; and the committee will act together with the Secretary of the Smithsonian Institution as member, *ex-officio*. The right is reserved to award no prize if, in the judgment of the committee, no contribution is offered of sufficient merit to warrant an award. An advisory committee of not more than three European men of science may be added at the discretion of the Committee of Award.

If no disposition be made of the first prize at the time now announced, the Institution may continue it until a later date, should it be made evident that important investigations relative to its object are in progress, the results of which it is intended to offer in competition for the prize. The Smithsonian Institution reserves the right to limit or modify the conditions for this prize after December 1, 1894, should it be found necessary. Should any of the minor prizes not be awarded to papers sent in before July 1, 1894, the said prizes will be withdrawn from competition.

396

A principal motive for offering these prizes is to call attention to the Hodgkins Fund, and the purposes for which it exists, and accordingly this circular is sent to the principal universities, and to all learned societies known to the Institution, as well as to representative men of science in every nation. Suggestions and recommendations in regard to the most effective application of this fund are invited.

It is probable that special grants of money may be made to specialists engaged in original investigation upon atmospheric air and its properties. Applications for grants of this nature should have the indorsement of some recognized academy of sciences, or other institution of learning, and should be accompanied by evidences of the capacity of the applicant, in the form of at least one memoir already published by him, based upon original investigation.

To prevent misapprehension of the founder's wishes, it is repeated that the discoveries or applications proper to be brought to the consideration of the Committee of Award, may be in the field of any science or any art without restriction; provided only that they have to do with "the nature and properties of atmospheric air in connexion with the welfare of man."

Information of any kind desired by persons intending to become competitors will be furnished on application.

All communications in regard to the Hodgkins Fund, the Hodgkins Prizes, the Hodgkins Medals, and the Hodgkins Fund Publications, or application for grants of money, should be addressed to Mr. S. P. Langley, Secretary of the Smithsonian Institution, Washington, U. S. A.

SPORTS.

MADRAS ATHLETIC ASSOCIATION.

(Late "Madras Physical Training and Field Games Association.")

The Annual Competitions of the Association will be held in Madras in January 1894, and begin on Friday 26th January. The exact days and hours for particular events will be notified after all the entries have been received.

The competitions are open to all Colleges and High Schools in the Presidency, and also to those of Travancore, Maisur, Haidarabad, Cochin, and other Native States, under the New Rules and Regulations adopted at the Annual General Meeting of the Association held in March 1893, and printed in our June number.

PRIZES. — Besides the Cups and Trophies mentioned in our June number, the Association will give additional Prizes in each of the Competitions, if sufficient merit be shewn.

No entries will, under any circumstances, be accepted after Friday,

5th January, 1894.

The ties will be drawn and notified to the various Clubs in the second week of January. The drawing will be so arranged that all *byes* 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.

HIS EXCELLENCY THE GOVERNOR OF MADRAS has intimated his intention of attending some of the competitions.

All entries should be made through, and all enquiries addressed to, the Honorary Secretary and Treasurer:—

M. T. QUINN, M.A.,
Puchaiyappa's College, Madras.

THE INTER-SCHOOL GYMKHANA, MANGALORE, 1893.

We have received from Mr. G. F. T. Power, C.S., Chairman of the Committee, the following communication, from which we make extracts, regarding these competitions.

Rules of the Competition.

1. The competition this year shall be in
 - a. Athletic Sports.
 - b. Lawn Tennis (Doubles, the best of 3 sets).
 - c. Gymnastics.
2. Every school in Mangalore numbering over 100 pupils and every school in the District outside Mangalore numbering over 50 pupils, shall be allowed to compete.
3. All schools desirous of competing must state their intention in writing to the Chairman of the Municipal Council on or before December 15th, 1893, stating definitely for what events they intend to compete.
4. No school will be allowed to compete without the sanction of its head-master and the application of each school should ordinarily be sent through the head-master.
5. No school shall send up more than two competitors for each event, except for the Tug of War, when the number shall be eight.

6. Due notice of the dates and places fixed for competition will be sent to the head-masters of the various schools, and will be notified in the District Gazette.

Further particulars may be obtained from the Chairman of the Committee, or from the Chairman of the Municipal Council, Mangalore.

INDIAN NOTES.

The Annual Convocation of the Allahabad University will take place on the 6th of next March.

Mr. A. G. Bourne, D. Sc., Professor of Biology, Presidency College, Madras, proceeds to England on furlough next February.

Mr. W. S. Meyer, B. A., C. S., Examiner in History to the University of Madras, proceeds next month to Europe on furlough for two years.

The Government Training School now at Nandyal will be transferred to Kurnool in January, 1894.

Mr. N. Vaidyanatha Aiyar, M.A., and Mr. C. Nagoji Rau, B.A., have been elected by the graduate body for nomination by His Excellency the Governor as Fellows of the University of Madras.

A movement has been set on foot by the Indian friends of Sir Henry Stokes to raise a fund and award from the interest thereof a Scholarship to a student studying for the M. A. Degree Examination.

The foundation stone of the new "Fabricius" School of the Lutheran Mission was laid at Pursewalkum, Madras, on 21st ultimo, by the Right Rev. Mr. Von Schwarz, Director of the Mission.

Mr. H. Malim, B.A., hitherto Vice-Principal of Caldwell College, Tuticorin, has now, on the reduction of the College to the status of a High School, been appointed to the S. P. G. College, Trichinopoly.

We learn that the Hon. the Rev. Dr. Miller, C. I. E., Principal, Madras Christian College, intends proceeding on furlough to Scotland about the middle of next year.

We acknowledge with thanks the receipt of the Reports on Public Instruction in Burma for the year 1892-93, and in Ceylon for the year 1892. We hope to refer to these Reports in later issues.

We have received from the Registrar of the University of Allahabad a list of the Examiners appointed to conduct the various Arts Examinations in 1894, and we hope to publish it in an early issue.

We acknowledge with thanks the receipt of their new Calendars for the year 1893-94 from the Registrars of the Allahabad and Panjab Universities. We hope to make use of their contents in later issues of this Journal.

Two prizes of Rs. 15 and 10 respectively have been offered this year by Judge Poonen, to the boys passing highest at the ensuing F. A. and Matriculation Examinations from the C. M. S. College, Kottayam, the prizes being decided in the final examination of the College.

The Rev. C. W. A. Clarke, M.A., Principal, Noble College, Masulipatam, has returned from furlough in Europe, and has taken over charge from the Rev. H. F. Tanner, M.A., Rugby Football Master, who was acting as Principal.

Mr. A. Crichton Mitchell, D. Sc., F.R.S.E., Principal, Maharajah's College, Trivandrum, has just received the additional appointment of Educational Secretary to the Travancore Government with an extra allowance of Rs. 100 a month.

The Government of India has sanctioned a proposal that a Faculty of Engineering be constituted at Allahabad University, and have also empowered the Senate to confer the degrees of Bachelor and Master of Civil Engineering.

There were in all sixteen candidates for the Bombay University First Examination in Civil Engineering out of whom fourteen were declared successful. Pestonjee Barjorjee Doctor, who alone has been placed in the first class, has won the Colonel Patrick French Scholarship.

Out of the nine candidates who presented themselves for the Second B. Sc. Examination of the Bombay University, the following three were declared successful:—Second Class.—V N Hate. Pass.—K D Majumdar and T D Velankar.

We learn that it is intended to introduce Drawing into all High Schools under the control of the Madras Director of Public Instruction. Drawing is now very commonly taught in English Schools, and in the Schools of Continental countries and even of some of our Indian Provinces.

The Madras Government has at last seen the futility of insisting on candidates passing the Upper Secondary Examination in order to qualify for admission to superior appointments, and has again restored the Matriculation Examination to its old position as a minimum qualifying test, but Matriculates will still have to pass in a few additional subjects.

Mr. E. D. Archibald, M.A., the new Principal of the Jubbulpore College, is an old Indian Educationist of long experience, and is well-known in the North. He had left India for a long time and settled down at home, but found that army-cramming had its draw-backs. He is a skilled meteorologist, and strong on cyclones.

Mr. K. Sundararama Aiyar, M.A., who has recently been acting in Trivandrum as Tutor to the Second Prince of Travancore, has now reverted to his regular duties as Lecturer on the staff of Kumbakonam College, owing, we learn, to the fact that the Prince has abandoned all ideas of further University honours.

The Governor of Bombay in Council having signified his intention of permitting certain Graduates of the University of Bombay to elect two Graduates of a certain standing with a view to their nomination by Government as Fellows of the University, an election of two Graduates will accordingly be held in January.

The Dravidian settlers in Burma are not being forgotten by the Director of Public Instruction. He has just got Tamil and Telugu recognized as Languages that may be taken up under the indigenous school standards, and a Tamil Deputy Inspector of Schools has been sanctioned from 1st April, 1894.

We learn that the Madras Government contemplates closing the Waltair Orphanage in the Northern Circars, and transferring the children elsewhere, as the funds at the disposal of the Committee are quite inadequate to erect a new building or even to put the existing one in a satisfactory condition.

A proposal to amalgamate the American Mission High School at Ranipet with the Church of Scotland High School at Vellore in order to develop a Second Grade College at the latter station, under the joint control of the two Missions, has been cordially adopted by the local Committees; and the matter has been forwarded for approval to the Mission Boards in Scotland and America.

Mr. C. A. Paterson, M.A., Offg. Principal of the Church of Scotland Mission College and President of the Madras Phonographic Society, has induced Mr. T. A. Read, the veteran Phonographist, now in Calcutta in connexion with the Royal Opium Commission, to promise to deliver a lecture on Phonography at Madras should he accompany the Commission thither.

The result of the Bombay University L. M. & S. Examination was declared on the 13th instant. Out of the 43 Candidates 13 were declared successful. Phirozshah Rustonji Modi wins a First Class and gets the Charles Morehead Prize. Miss Emmeline DaCunha gets the Balkrishna Sadanandji Prize, the Scholarship for Medical Women for India, the Lady Reay Gold Medal, and the Bai Hirabai Pestonji Hormasji Cama Gold Medal.

The result of the Bombay University Previous Examination was declared on the 12th instant. Out of the 997 candidates, who had presented themselves for this examination, 383 were declared to have successfully passed. Out of the 383 successful candidates, 3 were declared in the first class, 84 in the second class, and 296 in the third class. The Hughling's Prize was awarded to Mable Margaret Evans, a successful lady candidate, while Shripat B. Jog secured the Venayakrao Jagannath Shankersett Prize.

Rev. M. M. Miranda, Manager of the St. Thomé High School, has, forwarded an application to the Registrar of the University of Madras, requesting the affiliation of the institution as a second-grade College. The application has been countersigned by the Bishop of Mylapore and Dr. Bradshaw, Inspector of Schools, Central Circle, in their capacities as Fellows of the Madras University. The institution will be designated "The St. Thomé College," and the senior classes will be held in the large hall in the upper floor. The staff will consist of three priests, one Master of Arts, and three Bachelors of Arts, besides Pandits to give instruction in Sanskrit, Tamil and Telugu.

We learn that when the Madras Literary Society and Auxiliary of the Royal Asiatic Society has transferred all its books and property from its present head-quarters under the Office of the Director of Public Instruction at Old College, Madras, to the new apartments reserved by Government for the Society in the Connemara Free Library, it is proposed to convert a large portion of their present premises into a Library and Museum for the reception, and inspection by the public, of the present large and ever-increasing stock of Educational books, appliances, and apparatus, forwarded by Educational agents and publishers to the Office of the Director of Public Instruction.

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The result of the First Examination for the Degree of LL.B. of the University of Bombay was published on Tuesday, 5th instant. Of 136 candidates, 103 have passed—41 in the First Class and 62 in the Second Class. Ardesir Shavakshaw Davur wins the Kinleck Forbes Gold Medal and Prize. The result of the Second Examination for the Degree of LL. B. was declared on Thursday, 7th instant. Out of the 9 candidates, 5 were successful, and K. M. Mawdavala gets the Mancherji Navroji Banaji Scholarship. The result of the Examination for the Degree of LL. B. was declared on Wednesday, 6th instant. Out of 110 candidates, 30 were successful, and P. G. Chandavarkar gets the Arnauld Prize and the Spencer Prize.

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The Madras Director of Public Instruction proposes that in the appointments of Professors to the Medical College, the Surgeon-General with the Government of Madras should leave the control entirely in his hands, and suggests that Medical Officers desirous of posts as Professors in the College should send in their applications, with their testimonials, through the Surgeon-General, to the Director of Public Instruction, with whom the appointment will rest. As an alternative the Director proposes that the College should be manned entirely by specialists from England who will also have medical charge of the General Hospital. This contention of the Director of Public Instruction is based on the analogy afforded by the Civil Engineering College, the control of which is in the hands of the Educational Department, and not of the P. W. D.

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The annual Report of the Students' Literary Association, Coimbatore, for the year 1892-93, the ninth of its existence, shews the steady progress and prosperous condition of the Association. At the end of the year there were 47 Honorary, 35 Senior, and 54 Junior Members. Including the grant of Rs. 120 sanctioned by the Director of Public Instruction, the total income of the year amounts to Rs. 713-3-9, and exceeds

that of the previous year by more than Rs. 50. There were 910 books in the Library at the end of the year, and the Association subscribed for 15 leading periodicals. A Gymnasium, Badminton Courts, and a Cricket Club are freely used by the members. Periodical Science classes were held and lectures delivered in Physiology, Physiography, Physics and Chemistry. The Association is well organized, and does good work, and we heartily wish it a prosperous future.

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The scheme for the re-organization of the Madras Educational Department which was submitted by Dr. Duncan and forwarded to the Government of India for despatch to the Secretary of State was referred back by the Supreme Government to the local Government, with instructions that the re-organization should not entail additional expenditure and that arrangements should be made for allowing the present officers of the graded service to remain and rise in that service, in case they desired to do so. Dr. Duncan before proceeding on furlough, submitted a revised scheme to Government, which satisfies the conditions laid down by the Government of India. The scheme will now be forwarded for the sanction of the Secretary of State, along with the schemes of the other Provincial Governments, by which the whole of the Indian Educational Service will be placed under one common system.

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The annual distribution of prizes at St. Xavier's College and High School, Bombay, managed by the Jesuit Fathers has just taken place under the presidency of Dr. Bhandarkar, the new Vice-Chancellor of the University. This is the first public function in which he has taken part since his appointment as Vice-Chancellor. The occasion was marked by the dramatic performance of selections from *Coriolanus*. The Rector's Report shewed the flourishing condition of the institutions under his charge, which, on account of their great success, are largely patronized by all classes of the community, irrespective of caste, creed, or colour. Dr. Bhandarkar delivered an impressive address in which he pointed out the paramount necessity of enforcing moral discipline in our Schools and Colleges. Turning to the Rector, in the midst of his discourse he said:—"In your case, Reverend Sir, this is an easy matter. Discipline and order are the very spirit of your Church and they are the distinguishing features of the Society to which you belong (Applause). This, I believe, is at the bottom of the traditional good discipline and high moral tone that you speak of in your Report."

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LITERARY NOTES.

It is stated that the Laureateship is to be given to Mr. Lewis Morris, Mr. Swinburne having declined the honour.

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The Crown Prince of Siam is truly a prince among boys. He has written several stories for English children's magazines, and can write fluently in three European languages.

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A Bengali novel, by the late Peari Chand Mitter, has been translated into English by Mr. G. O. Oswell, of the Court of Wards, Bengal. It is called "The Spoilt Child" and is a story of domestic life in India.

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A little book that should prove very useful to Canarese students is "Popular Canarese Proverbs and their English Equivalents" by Messrs. S. Aiman, B.A., and Ub. Narasinga Rao, B.A. It may be obtained from the Basal Mission Press, Mangalore, at the cost of only two annas

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The second number of Vol. V. of the *Vidya Vinodini* keeps up the reputation of this high-class Malayalam monthly. Physical Geography, Dreams, Student-Life, Habits, the Drama, and Administration, are among the subjects dealt with; and Shakspeare's *Tempest* is continued in Malayalam.

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Mrs. Craigie, who contributes to the "Pseudonym Library" under the name of "John Oliver Hobbes" has lately been making her way steadily in literature. Among her works are "Some Emotions and a Moral"; "The Sinner's Comedy"; and "a Study in Temptations." She was 26 last month.

* * *

We have received a copy of the able and instructive Address on "Rome's Government of her Provinces" delivered last month to the Presidency College Literary Society by Mr. W. S. Meyer, C. S. It has been printed in pamphlet form by Messrs. Addison & Co. of Madras, and should be carefully perused by every History student.

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The *Telugu Journal of Education* steadily pursues its useful career of diffusing correct ideas to teachers of both sexes in primary Telugu Schools on the subject of teaching the young. The Editor gives a Telugu translation of Mrs. Brander's Lecture on Teaching delivered before the Teachers' Association, Guntur. An Object Lesson, and the Remarks on School Drill are the exact thing for a Primary Teacher.

401

An English translation of the *Charaka Samhita* is being published by Mr. D. Avinash Chandra Kaviratna of Calcutta. It is the subject of a recent interesting article in an American Journal by Dr. F. A. Hassler who calls attention to "the valuable and interesting information contained in this great monument of ancient Hindu wisdom and learning" and takes the opportunity to set forth the "astonishment and delight" afforded by a study of Hindu literature generally.

* * *

We have received from St. Aloysius' College, Mangalore, a daintily designed and exquisitely executed collection of laudatory verses written in twelve languages Sanskrit, Greek, Latin (two poems), Italian, Spanish, French, German, Konkani, Canarese, Tulu, Malayalam, and English—by the Fathers, Pandits, and Students, of the College, as a tribute from the Catholic community of Mangalore to H. E. Lord Wenlock, Governor of Madras, on the occasion of his visit to the College and people of Mangalore.

* * *

The *Bhārata* has been rapidly followed by *The East Coast News*, so that the Telugu population of the Northern Circars of the Madras Presidency can no longer complain of being unable to make their wants felt and their voices heard in the councils of their rulers. The *Bhārata* is published every Wednesday at Rajahmundry; its younger rival, *The East Coast News*, every Friday evening at Vizagapatam. The latter has just published two articles on "The System of Education in India", some statements in which seemed to us to demand editorial notice.

* * *

We have received the April and July numbers of *The Industrial Quarterly Review of Western India*, edited by Mr. M. B. Namjoshi, Honorary Secretary, Industrial Association of Western India. To the former issue Mr. Frederic Pincott contributes an interesting article on "Direct Trade," and Mr. J. A. Baines, C.S., Bombay, another on "Occupation and Caste in India, as shown in the last Census"; while a particularly able paper by Sir Juland Danvers, K.C.S.I., on "The Manufactures of India: their State and Prospects," originally read before the Society of Arts, is printed, along with the discussion that followed, in the July number. A periodical directing the attention of the Indian peoples to Industries is just what is most wanted, and we hope to see the efforts of our contemporary crowned with success.

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The November number of the Tamil *Vireka Chintamani* deals among other things with "Hallucinations" and Hindu Eras, and has two poetical contributions. The article on "Hindu Eras" is by

Mr. T. R. Ramanatha Aiyar, B.A., L.T., of Pachaiyappa's College, and explains the origin of each era in use in India and how the traditions connected with some of them are unfounded. Kamalambal and Thangammal are vivid sketches of Home Life, shewing the treatment and position of native ladies. These two articles, if printed separately after completion, would make readable household stories and bring about a revolution in manners, for it is in reading a sketch of life as it is that we see its deformities. The two pieces of Tamil poetry, "A Call for Play" by Mr T. Saravanamuttu Pillai, and "Siva and the Squirrel," are very useful departures from the stiff orthodox versification. The latter is a particularly interesting story, which has also been put into English verse by Sir Edwin Arnold. This Journal has done and continues to do good service to all parties connected with Tamil Education. Government lent a hand to give it the initial impetus needed. We understand that this help is now to be largely withdrawn. It rests therefore with all the Local Board and Municipalities that have the control of schools in the Tamil speaking districts to rally to the rescue; and we earnestly hope they will do so. Next year the Journal proposes to open a Teachers' Column with the kindly assistance of Mrs. I. Brander, Inspector of Schools.

OUR LONDON LETTER.

I have been undergoing what is for me a rather unusual experience, and I trust I may be permitted to improve the occasion, even at the risk of appearing somewhat personally garrulous. I have been an examinee instead of an examiner, and in spite of the consolation of having passed, I do not at all relish this reversal of what I have come to consider the true order of nature. After having sat on the bench so long, it is neither pleasing nor befitting to have to appear in the dock. Altogether one feels somewhat like the high inquisitor in Rider Haggard's story, when himself haled before the Aztec sacrificial altars. I trust that my friends who are prone to literal interpretation will not imagine that in personal appearance I have come in any way to resemble the miserable wretch depicted in the engraving attached to the story, but I feel as if I might come even to that in course of time. Well, seeing that it is now twenty-two years all but two months since I last appeared before the examiners, I may be excused some natural trepidation. I do not suppose, and I certainly most fervently hope, that a growing difficulty to conform the mental processes to the exigencies

of the examination hall does not indicate general failure of mental power or any specific mental disease, any more than an inability to run a hundred yards in a shade over evens indicates a physical break-up, or breakdown, whichever may be the correct expression. Still the mind, like the body, gets in process of time into ways of working of its own, and the lines on which it runs, the method in which it tackles and grasps a subject, are not exactly those best suited for the answering of questions, especially in a written paper. In *vivâ voce*, I grant you, the experience and want of due respect, to put it mildly, of the elderly examinee count for something in his favour. One certainly begins at least to understand the feelings of utter hopelessness that must come over the Chinese candidates for university honours, who we are told come up again and again till they reach the limit of human age and are perhaps pensioned by the state as a reward for persevering in the endeavour to display the merit they do not possess. However, it would never do to allow people to pass examinations *ætatis causâ*, age has no privileges in this competitive era, and those of us who have got thus belated must just do the best we can and trust to a continuance of good luck and merciful examiners.

I hinted when I introduced this subject that I might be able to improve the occasion, and it may not be uninteresting, in consideration of the growing importance of the bar examinations to Indian students, to say a few words about them and the form into which they have now with some appearance of permanence, settled, after having passed through a transition stage. To shew that I do not exaggerate the importance of these examinations, I may refer to the result of that just concluded. For the complete examinations, 102 candidates appeared, and of these 63 were successful, of whom no fewer than thirteen (I hope that in this instance the number will prove lucky rather than the reverse) bore names unmistakably Indian. It may be mentioned by the way that this pass of sixty-two per cent. is considered "terrible slaughter," and has come like a thunderbolt upon various wiseacres who have been boasting loudly that the test was a mere form and made their preparations accordingly. On the contrary there has for the last twelve months or more been little doubt in the minds of close observers that the Council of Legal Education has determined to make not only the examinations but the lectures a very stern reality. The attendance at lectures is not of course compulsory; but as the papers are avowedly and actually set upon the lectures, a candidate who does not attend the lectures stands at a very serious disadvantage. Any one may naturally study any subject or all the subjects privately, but when, studying say

"Principles of Equity, Trusts, and Easements"; he sees a foot-note to the effect, "The above subjects will be examined upon so far only as treated in the lectures and classes since—some given date"; he feels that he may very easily learn too much; not too much for knowledge; but more than enough for the special object in view. And then should he stroll into a lecture and hear the lecturer say, "There is a large number of leading cases in the books on this point, but I have selected two typical ones and you need not trouble about the others"; he feels inclined to tear his hair and do other extravagant things, when he thinks of the weary hours he has spent over the ninety-eight discarded cases which will certainly not figure in the next paper. Thus it happens that the attendance at the lectures is increasing enormously, and not only is it increasing but it is remarkably regular. Those who come, come to stay. It is moreover only fair to say that the great majority of the lectures are admirable, and now that the lecturers have got them into proper form and accommodated to the course of one or two years as the case may be, they are well worth attending, apart altogether from considerations connected with examination.

For the purposes of the lectures the course of legal study is divided into five branches, in addition to Roman Law. These are:—

- I. Elements of the law of real and personal property;
- II. Elements of the law of contracts and torts.
- III. Principles of equity, trusts, and easements.
- IV. Procedure and evidence.
- V. Constitutional law and legal history.

In addition to the examination in Roman law after having kept at least four terms, the candidate will, at any time after he has kept nine terms, be examined in any three of these five, and will further be examined in a group to be selected by the candidate out of three groups, which are intimately connected with the three first branches, and with which a more minute acquaintance is naturally expected. These groups are:—

- A. Purchases and leases; mortgages; settlements and wills.
- B. Negotiable instruments; agency in mercantile contracts; contracts of sale of goods.
- C. Administration of estates on death; specific performance; partnership and winding up of companies.

It will thus appear that, while allowing a certain limited selection to suit individual idiosyncracies, there is the ground work of a very fair and substantial course of study, and, with examinations of moderate severity, calling to the bar is by no means the formality it once was; and this the Inns of Court have shown themselves wise in their generation;

for the grumbling was not small at what appeared a mere useless monopoly. They are now however justifying their existence as guardians of the portals to the legal arena.

Yesterday being the first day of term, I had the pleasure of dining in Middle Temple Hall with, as mess-mate, a very old member of the inn, so old as to be forgotten by the hereditary porters, the Hon. W. C. Bonnerji. He leaves for India to-day, by his own account and to all appearances thoroughly restored to health and overflowing with energy for a long new lease of work. He was much struck with the altered appearance of the hall, with fully a third of the diners Indians, very different from the time, twenty-five years ago, when he formed one of a noble but small band of three pioneers, who have had such a numerous following. One thing is certain; no young student of law can have a more worthy or more inspiring example to follow in every branch of his career than that set by Mr. Bonnerji.

In my last letter I recommended the readers of the Journal to study Mr. Tupper's able survey of Indian constitutional history. My "Book of the Month" for December will prove lighter fare, not quite so substantial but decidedly appetizing and nourishing withal. I have read with much interest, though not, I fear, with that rollicking sense of humour that the author hoped, Mr. Malabari's work, just published by Messrs. Constable, to which he has given the not inappropriate name "The Indian Eye on English Life". The book is in most respects so good that it is a pity that the author has attempted to better it by venturing into a field in which he is not made to shine. In the purely narrative portion, Mr. Malabari seems to have had a mind to adopt as model "The Sentimental Journey" or "The Innocents Abroad"; but fortunately he is neither a Sterne nor a Mark Twain. So little is he so, that only by a strong and visibly painful effort does he remember his rôle; whence it happens that the jarring passages are few and far between. Not that Mr. Malabari is deficient in humour, far from it; but his wit is distinctly of the Carlylean type. He resembles Carlyle, too, in his marvellous power of accurate observation and the facility with which in a few daring words he limns a person or a situation. Be it said too, with all respectful apologies, he seems to resemble the sage of Chelsea in possessing a very weak stomach; a failing which militated somewhat against his gaining a perfectly accurate view of certain aspects of English life. Unfortunately this want of first-hand knowledge does not prevent his sitting in judgment, and naturally his judgments wander as far astray as do his opinions upon the theatres and music halls, which he never visited. This is a pity; for when Mr. Malabari relates what

he hath seen and tells what he doth know, there could be no truer skrewder, and withal friendly critic of our national life and institutions. We should suggest too for the second edition, which will doubtless be quickly called for, the excision of the description of the Passion Play at Ober Ammergau, which has evidently been dragged in to fill up, and under the circumstance not in the most perfect taste.

Having finished the fault finding, let me give a sample, and, in justice to the author, a sample only, of the good things. And first, note the sound common sense which the "pilgrim reformer" shows on his rambles. Thus in dealing with the Temperance question, he points out how futile it is to tell the victim simply that alcohol is poison. "It is small comfort to the would-be suicide, to tell him that he must die". He must be supplied with "harmless and equally agreeable substitutes, to make life happy for him if you wish him to live on". Treating of another evil, he cleverly turns the tables on those who preach against Hindu extravagance at weddings, by pointing out the sinful waste of the English upon funerals. The poorer classes copy the rich, and the vast amount of industrial insurance in Great Britain is really insurance for idle display, which does much harm to the living as surely as it does no good to the dead. Here is the Indian question of to-day put in a nut-shell. "The present generation of natives are duly grateful for the blessings of peace and education they have received. To them it has been a matter of personal experience. Will it be the same to the coming generations? They may look upon the blessings rather as a matter of course, while they cannot but resent poverty and lack of employment all the more keenly because of the education they have received". And during these last miserable weeks of the Coal-Strike nothing has been more truly written or more neatly put than the following. "It is absurd to postulate a free contract between urgent want on one hand and easy sufficiency on the other. Freedom of contract is not the same thing as freedom of trade. I doubt if Capital will be able very long to resist the legitimate claims of Labour. The spirit of the age is crying out against such resistance. Not that the employers as a body are cruel men. But vested interests are very hard to move, and a false sense of *esprit de corps* makes them oblivious to duties which individually they feel sitting heavy on the conscience". In many instances Mr. Malabari is content to condense his wisdom into an epigram. Some of these are very happy indeed. Speaking of the artificial enjoyment of life in England, he says: "The scramble after happiness indicates a low ideal, rather than a high one." Dealing with arguments in favour of polygamy, free-love, &c., drawn from the brute creation, he remarks: "Think of man reverting to this primitive state without any of the inflexible

safe-guards of instinct under which alone can animals indulge themselves". Of London streets on Sunday: "The crowds are evidently on their behaviour. But it is hard to say if they move more in sympathy with their holiday attire, or the sacred surroundings amid which their souls might be expected to rest and to revel". Of Missions: "Religion, like charity, may begin at home; but it must not end there". Of the Salvation Army: "They tell me that the movement is intended for the masses who can be best worked upon through the emotions. This is true; but it is no less true that emotion, carried too far, is dangerously akin to intoxication; that when a fit subsides, it leaves the victim all the weaker in moral responsibility". Of the abolition of Monarchy: "Let us put up with half-pleasant facts rather than court the pleasantest of fictions". Finally, for I must not steal all his good things, of killing animals for food: "The brute nature still lingers in man, though sufficiently 'advanced' to make the worse appear the better reason".

It will probably be surmised from some of these remarks that the author is not altogether an optimist, but his pessimism is of the very cheeriest type, and above all he is always thoroughly well pleased with himself; and thus he and the reader cannot but be ever upon the best of terms. We lay down his book with the satisfaction of thinking that if things are not for the best, they are yet not altogether for the worst in this world; and with this comfortable feeling, we heartily commend its perusal to the readers of the *Journal*.

Among the crowd of "Readers" competing for the attention and patronage of the Indian Schoolmaster, Messrs. Longmans have arranged for a series which will be truly Oriental. The Editor, and to a great extent author, is Mr. B. C. Dutt, who requires no introduction here. One peculiarity is that these Readers will not consist of mere extracts, but are largely the composition of the editor himself. In fact I believe they are based on work done by Mr. Dutt to introduce his own daughters to History, Science, and the wonders of Nature. Here I may say, that Mr. Dutt, who fortunately has the courage to do good work for India in other fields than that of education, has just returned to Bengal; full and overflowing—if appearances go for any thing,—of vigorous healthy and good-humoured energy.

Among the firms now entering with vigour the Indian Book-market must be included that of Messrs. Geo. Bell & Sons—best known perhaps to my readers through "Webster's Dictionary." They have

just commenced a series of "English Classics," which ought, if edited and annotated with care and scholarship, to find its place in our schools. The general method does not appear—judging from the specimen I have seen—to vary widely from other series, but the selection of works has a pleasant charm of novelty. Thus, in addition to the inevitable plays of Shakespeare, the volumes ready are Browning's "Strafford" by Mr. Arkey, Lamb's selected "Essays" by Mr. K. Deighton, and Byron's "Childe Harold" by Mr. H. G. Keene, C.R.E. I have no doubt these will in course of time be criticized on their merits in your pages; and it is only for me to say that Messrs. Bell seem to have spared nothing in care or expence to make the series outwardly attractive.

One of the most interesting books of the Christmas season will be the reprint of the illustrated edition of Tennyson's Poems, first issued in 1857, but now very scarce. Among the contributing artists were Millais, Holman Hunt, Mulready, Rossetti, and MacIise. If Messrs. Macmillan would only celebrate some Christmas by a people's edition of Tennyson, they would confer a boon on the English speaking race greater than could be given by the most magnificent *édition de luxe*. By the way, an Indian open secret is so no longer. The name of Sir Mortimer Durand now appears on the title page of "Helen Treveryan," a novel well known in India and appreciated. Sir H. S. Cunningham must look to his laurels.

REVIEWS.

THE MARQUESS WELLESLEY, K. G., by the Rev. W. H. Hutton, M.A., Fellow and Tutor of St. John's College, Oxford, and Examiner in the Honour School of Modern History. Oxford at the Clarendon Press: 1893. 2s. 6d. ("Rulers of India" Series.)

In the Rulers of India series this is the best volume that we have as yet perused. Upon some volumes in that series a job done by a book-seller's hack is writ large, but this book is an honourable exception. We do not know why Mr. Hutton was selected for this task but he has certainly succeeded in it and we warmly recommend this book to our readers as well worth a permanent place upon their shelves.

Every body knows who the Marquess Wellesley was. As the elder brother of the Duke of Wellington he is labelled in the mind of every school-boy and he is overshadowed by the renown of his brother, the Great Duke, but his own career was brilliant and he stands out in history as one of the most prominent of the Viceroys of India.

The father of these sons that made so much stir in the world was the Earl of Mornington, an Irish peer who was known in his own day as a musician and the composer of the glee "Here in Cool Grot." As Mr. Hutton remarks, there must have been a strain of energy in the heredity of this family, and it is noteworthy that Wesley, the founder of the Methodists, was a distant kinsman. Richard Wellesley, the eldest son of the Earl of Mornington, was born in 1760. He was educated at Eton and Christ Church, where he became a brilliant classical scholar, and in 1781, at his father's death, succeeded to the title and to impoverished estates. He sat in the Irish House of Lords and three years later took his seat also in the House of Commons at Westminster as member for an English borough. His views at this period of his life were advanced. He was for the immediate abolition of slavery with Wilberforce and for the Union and Catholic Emancipation with Pitt, but the French Revolution frightened him and he was opposed to Parliamentary Reform. In 1797 the opportunity came to Lord Mornington and he accepted the post of Governor-General of India, landing in Calcutta on May 18th 1798. At this date the East India Company was still a trading Company, clinging to seaports on the coast and averse to interference with the inland States in India. The Bengal Government held what Clive had obtained and Hastings had consolidated, and had control over Oude. The Madras Government held the Northern Circars and some southern territory and had control over the Nawab of Arcot. The Bombay Government had some control over Surat. But the Maratta powers were dominant almost from Oude to Canara and they held out a hand to Tanjore. The Nizam had a large French force at his capital. Tipu Sultan of Mysore from his ports on the West coast was in constant communication with the French Governor of Mauritius. The descent upon India of a French army from Egypt was part of the enemy's programme. All this Lord Mornington learned at the Cape on his way to India and he set to work instantly on arrival to alter it. The first step was to compel the Nizam to dismiss his French troops and, this accomplished, the Governor-General prepared for war against Mysore. The Madras Government were much averse to this bold stroke but were over-ruled, and Seringapatam was taken and Tipu slain. The State much reduced in limits was restored to the Hindu dynasty which still reigns over that country. We are apt to forget how extensive were the dominions of the Sultan of Mysore and how powerful was the monarch overthrown by General Harris' army. From Caroor and Gooty to the West coast the Mysore Kingdom extended. The Company took Canara, the Wynaad, Coimbatore and Dharapuram with a strip of land above the Ghats that placed all the passes in British hands. The

Nizam obtained the districts of Gooty and Gurram Konda but two years afterwards ceded them to the Company and thus to this day Caddapah Kurnool, Bellary and Anantapur are known as the Ceded Districts. Tanjore and Arcot were also placed under the Company's Government and thus the Presidency of Fort St. George grew into existence and afforded scope for the energies of administrators like Munro.

The next blow was at the Mahratta power. It takes one's breath away to read once more of the battle of Assaye where Arthur Wellesley, only thirty four years of age, with a force of only nine thousand men did not hesitate to attack a Mahratta and French force of ten times that number.

For the conquest of Mysore the Governor-General was created Marquis Wellesley and the public voice was loud in his praise, but he was not liked by the East India Directors in Leadenhall Street. Most imperious towards his own subordinates, as witness his letters of instructions to the Governor of Madras, he paid little attention himself to the wishes of his "Honourable Masters" and the opportunity was taken of Colonel Monson's disastrous retreat before the Mahrattas to supersede Lord Wellesley, who gave over charge to the Marquess Cornwallis on July 30th 1805.

He landed in England a few days before the death of Pitt and that event probably lost him political advancement, but from 1810 to 1812 he was Foreign Secretary and gave great support to the war in Spain where Wellington commanded. In 1802 the Marquis might have become Prime Minister had he not been in favour of Catholic Emancipation. This was the high tide mark of Wellesley's career. Afterwards from 1821 to 1828 he was Viceroy of Ireland but was not conspicuously successful although his intentions were good. He differed much from his brother, the Duke of Wellington, on the question of the exclusion of Roman Catholics from the franchise, and in 1828, when the Duke became Prime Minister, Lord Wellesley resigned. In the following year the Duke had to give way and Catholic Emancipation was carried, but the breach between the brothers was not healed and for ten years they were not reconciled.

The Marquess was a Member of Lord Grey's Cabinet which passed the Reform Bill and he was for a short time in Lord Grey's second Ministry, but he then retired from public life and, after seven years seclusion, he died in 1842 aged eighty-two years.

The author hints that the blot upon the character of the Marquess Wellesley and the real reason why he never rose to the highest position in the state was his lax morality. It is sad that this should have been

so. In his foundation of the College at Fort William in Calcutta for Civilians he was insistent upon the need of teaching Christian doctrine and principles. In his desire to do justice to his Catholic countrymen he was in advance of his fellows. It is sad that this flaw in his character should exist, but the Historian is right to point it out, if only as a warning.

PIONEERS OF SCIENCE, by Oliver Lodge, F.R.S.: London: Macmillan & Co. 1893. 6s.

This is a charming book, our review of which is long overdue. Professor Lodge is a distinguished member of that essentially English school of scientific writers who can serve up the fruits of a learning quite German in its profundity with the clearness and vivacity of a French literary style. Those who are acquainted with his writings in the highest fields of mathematical physics do not need to be told that Dr. Lodge possesses in a very marked degree the powers of lucid exposition and apt selection, and the rare faculty of divining where the true kernel of a problem lies hid and of getting it out of its worthless shell at the very first opportunity. The present volume has the full benefit of these qualities, though it deals with matters altogether on a lower plane. Indeed the only fault we have to find is that the title is somewhat misleading. The science of Astronomy is the only one touched upon, and only the first half of the book deals with the pioneers even of that. And it is this first part, in which the personal element is most prominent, that proves the most interesting. The lives of the illustrious six, Copernicus (born 1473), Tycho Braché, Kepler, Galileo, Descartes, and Newton (died 1727), more than cover the two centuries of the romantic youth of the goddess Urania. Of these veritable pioneers, the author gives us informing and sympathetic little biographies, which bring out in just relief the true greatness of their subjects. For Dr. Lodge never loses sight of the great principle which too many writers, all unwitting of the very existence of historical perspective, never catch a glimpse of; he remembers that neither the greatness of a man nor the stupidity of the masses can be measured by an absolute standard. It is the difference between the two, as they co-exist at any given time, that furnishes the only reliable standard. In the second part of the book, the personal interest becomes a vanishing quantity. As we are told in the preface, "the subject grows more complex and the men more nearly contemporaries; hence the biographical aspect diminishes and the scientific treatment becomes fuller." Here the most striking miracles of modern astronomy, based upon the wonderful mathematical developments of the theory by Lagrange and

Laplace, and the wider sweep given to observation by the Herschels, are gathered together and explained, with just a sufficiency of elementary geometry to satisfy the intelligent reader, who may not like to take every thing on trust. The more trustful portion of the audience is not, however, neglected; and the scraps of what they would probably call mathematics, are, with kindly forethought, printed in smaller type, so that they can be skipped with ease. On the whole, we can thoroughly recommend the book to all who wish to know something of the constitution and intricate movements of the universe in which their world plays so small a part. We must, before concluding, say a word in praise of the illustrations, which are excellent, and include portraits not only of the pioneers but of their most celebrated predecessors and successors from Archimedes to Lord Kelvin.

PERIODS OF ENGLISH HISTORY: 1. *Mediaeval England* (449—1509); 2. *The Reformation and the Revolution* (1509—1688); 3. *Great Britain and Ireland* (1688—1885): by W. Scott Dalglish M.A., L.L.D. London, T. Nelson and Sons: 1893. Three Volumes, Price 2s. each.

These thoroughly workmanlike little manuals are adapted to the modern English plan of teaching history in periods, where the time is too limited for a thorough and systematic study of the whole field. If history be included in a curriculum of studies on account of the lessons that it is calculated to teach, and not merely as an exercise of memory through the supply of dates and names it furnishes to the crammer, then there can be no doubt as to which plan is the more profitable. It is to be feared that in India we have not as yet chosen the better path, but cling to that which is certainly the pleasanter for the teacher, an aimless gallop over the longest chronological road. The Periods adopted by Dr. Dalglish are those of the Oxford and Cambridge Local Examinations, based not upon the fortune of war or the ups and downs of dynasties, but upon the development of the Constitution. "Thus, the first volume deals with Feudal Monarchy (Supremacy of the Crown), the second with Absolute Monarchy (the Crown *versus* the Parliament), the third with Limited Monarchy (Supremacy of the Parliament)." This side is kept well in view throughout. Not only are the constitutional changes of each reign analyzed and summarized, but a full table of constitutional points is given at the close of each volume. There are also useful glossaries of historical terms. These are far from being mere aids to cram. They include not only short accounts and explanations of the ordinary names and titles occurring in our annals, but necessary information as to matters only incidentally associated with English history and yet very necessary to be understood. Many of these are

connected with Continental and Scotch affairs; for example, the Investitures, Annates, Cameronians, the Assiento. There are also included many names and nicknames, from Aryans and Franklins to Adullamites and Parnellites. There is a large number of sketch maps and plans, and all the usual apparatus for study. The type and general turn out are good and pleasing to the eye.

A MANUAL OF MUSIC. By Ralph Dunstan, Mus. Doct. (Cantab). 13th Edition. London. W. H. Allen and Co. 1893.

This little volume is intended for the use of teachers in Elementary Schools and Pupils in Training Colleges, and covers all the ground required by the English Educational Department. As the Code has been frequently revised, numerous changes have taken place in musical as well as other requirements and we observe the little work before us has reached its Thirteenth edition. Its author possesses peculiar advantages as he is professor of music at two of the most important Training Colleges in London.

We are bound to say that in our opinion the book would be quite useless unless supplemented by *viva voce* teaching. Its place is not suited to make it useful to the unassisted student. In the hands of a teacher—who is a good musician to start with—it may be made very useful. In a work of this description, the first few chapters are necessarily the most important because the author cannot possibly have any new results to arrive at. Certain rules of part writing and laws of harmonic progression—as arbitrary perhaps to start with as the rules of Syntax or Prosody—have become so firmly established and have founded upon them superstructures so magnificent that no ordinary person could for a moment try to impose conclusions upon us which would disturb them. We therefore in a manual of music look for useful definitions and possibly hope to find some easier methods of imparting musical knowledge than those hitherto employed. In this hope we are disappointed. One reason of this is the attempt to crowd into the same book a description both of the staff notation and the Sol-Fa notation. Consequently a definition which begins in a sufficiently lucid way is found to tail off into a cumbrous attempt to include similar ideas peculiar to the Sol-Fa, with the result of obscuring both. Moreover we ask what is the good of telling the student in the very first chapter that the interval between C and D is greater than that between D and E—or again explaining that the diatonic scale contains five major seconds, two minor seconds, three major thirds, four minor thirds, six perfect fourths, one pluperfect do., six perfect fifths, one imperfect do., four major sixths,

three minor sixths, two major sevenths, five minor sevenths, and one octave. It may be perfectly true, in fact we take Dr. Dunstan's word that such is the case, but we have studied music twenty years without feeling the slightest anxiety on the subject. It is perfectly true also and equally appropriate that sixteen annas make a rupee. We must however admit that the term *pluperfect* is an improvement on the word *augmented*.

When approaching the subject of modulation the explanations are more satisfactory and the importance of the leading note is brought out. We have just indicated some of the defects in style in the earlier part of the book. But when he emerges from definitions, the author becomes much more interesting, and on the subject of the voice he is admirably clear, and his remarks might be read with advantage not only by singers but by all who use the voice much.

More than half the work comprises examination questions and tests actually proposed at various examinations, and a hasty glance through these leads one to the conviction that the real fault lies in the Educational Department. Dr. Dunstan's work is certainly adapted for what he intends it, but he will not succeed in teaching anybody music. Music is a language and should be learnt as the child learns its mother tongue, as a child learns and sings hymns without possessing the slightest musical knowledge. Put the music into his hands and let him continue singing, and he will if he have the slightest taste or inclination, instinctively ferret out for himself the connexion between the notes on the staves and the sounds he is producing, beginning with the observation that as the notes ascend on the staff his voice goes up and *vice versa*. Put then a few ignorant children and one or two more advanced, in a class and let melodies be sung of which each possesses the music or of which the music is on the board, and with the slightest possible verbal interference on the teacher's part results will accrue which would astonish any one who did not know that Nature was the best teacher. When the notation has been mastered in this way; there comes the time for easy syntactical explanations. The present system of teaching seems to us as well suited to its purpose as it would be to teach the infant that the verb must agree with the nominative. Correct the child in each individual case where he breaks that rule, but the rule itself may surely wait.

[We regret that we have no room to acknowledge the books received since we last went to Press, but they will be acknowledged or reviewed in our next issue.—EDITOR.]

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